

Digital Creative Arts special edition

The definitive guide to Adobe Photoshop

PHOTOSHOP

Photoshop CS ♦ Digital illustration ♦ Comic book art ♦ 3D retouching ♦ Web graphics

No.4

100 PAGES OF ADVICE

100% PHOTOSHOP

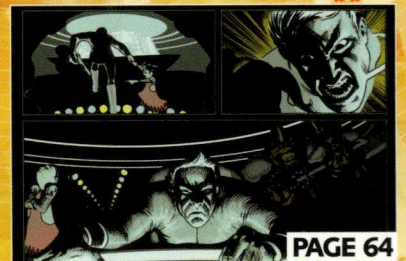
TAKE YOUR IMAGING SKILLS TO THE NEXT LEVEL AS WE REVEAL THE HOTTEST PHOTOSHOP TECHNIQUES AROUND

PROFESSIONAL SECRETS

50 PHOTOSHOP POWER TIPS

DISCOVER HOW TO UNLOCK THE FULL POTENTIAL OF THE LATEST VERSION OF PHOTOSHOP IN OUR EXPERT FEATURE

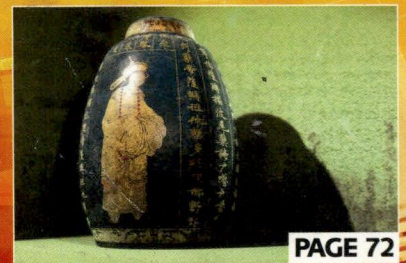
LEARN
HOW TO
CREATE THIS
STUNNING
IMAGE



PAGE 64

COMIC BOOK ART

A TOP 2000AD ILLUSTRATOR SHOWS YOU HOW IT'S DONE



PAGE 72

3D ILLUSTRATION

FIND OUT HOW TO RETOUCH A RENDER IN PHOTOSHOP CS

"excite, enthuse and inform"



ISSUE 04

£5.99



HIGHBURY 9 771740 277007

"The biggest advance in computing in recent years"

– **Peter Lewis**, Fortune

"One thing that's for sure is that the G5 is the biggest advance in computing in recent years, and not just because it is the first personal computer to use a 64-bit desktop processor."

– **Peter Lewis**, 27/10/03, Fortune

"With the introduction of the G5, Apple have underlined their commitment to our market. We at the Guardian believe G5, together with Mac OS X provides the ideal platform for the next generation of high-end publishing solutions."

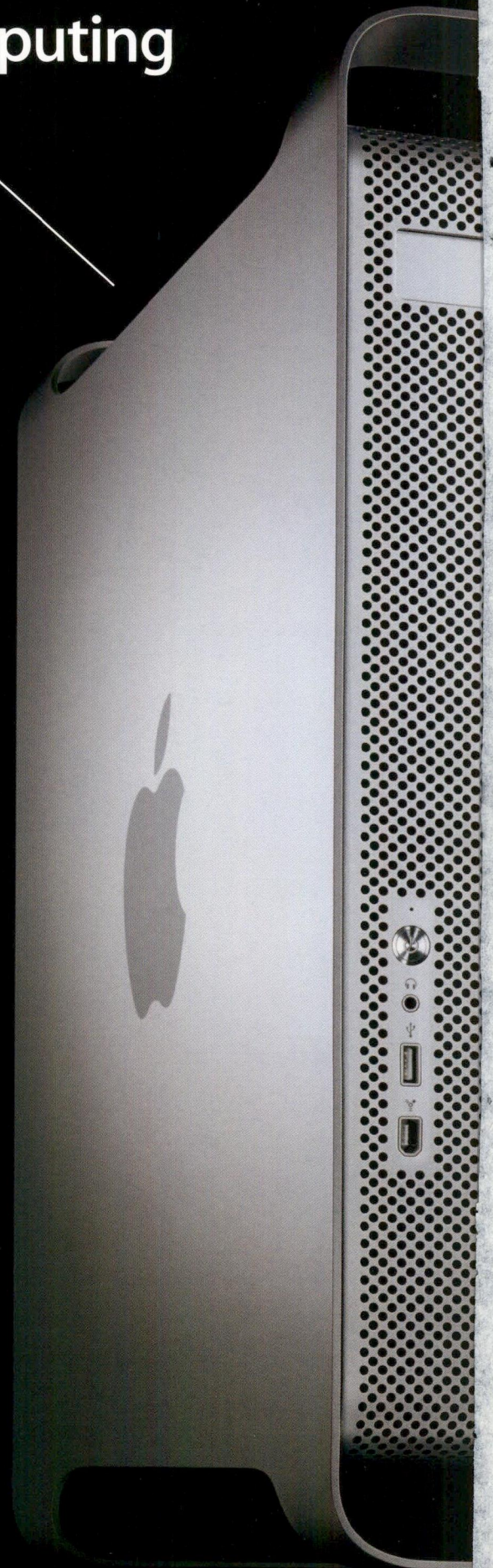
– **Derek Gannon**, IT Director, The Guardian

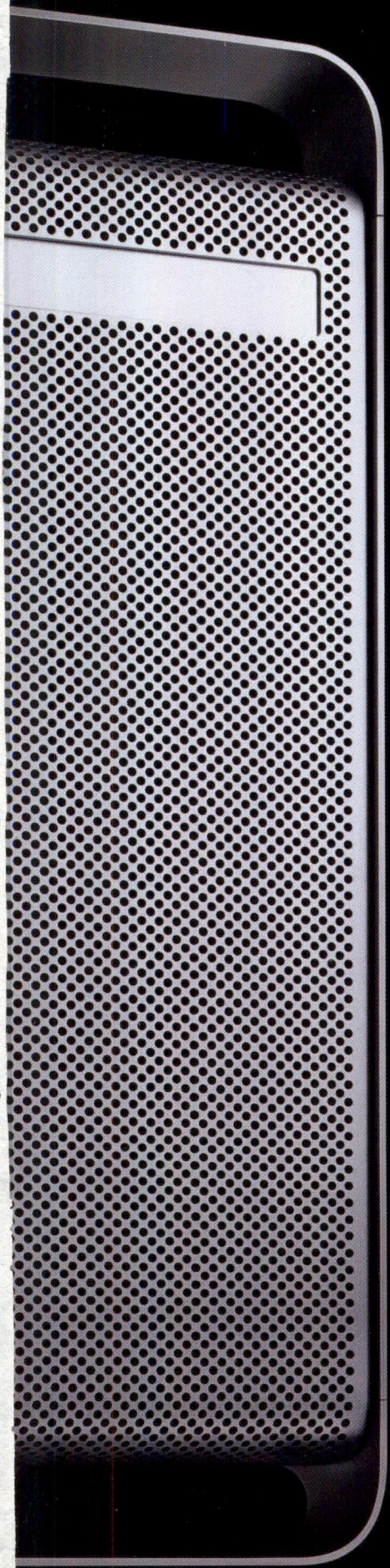
"To say that the latest and greatest G5 screams does a disservice to the word. I can say flatly that if you have been waiting for the G5 to update your aging Power Macs, you need wait no longer. It will chew through any processor-intensive task you throw its way."

– **Ken Mingis**, Computerworld

"A new definition of speed: The G5 from Apple."

– **Sam Bolleter**, IT Manager, Publicis





"On paper, the G5 dual 2Ghz looks like a winner. In the flesh, it's a stunner with the highest build quality of any computer we've ever seen. As far as performance is concerned there is nothing to touch it. Boost your productivity with one, you'll be glad you did."

– Rob Carney, Computer Arts

"It is a leap of not only faith, but over tall buildings in a single bound. The G5 is so revolutionary, it almost cannot be thought of as simply a better Macintosh, or as a trump card over the hand dealt to us by the Wintel world. This changes everything; the Power Mac G5 is really in a class by itself."

– George Tomlin, Digital Output

"The Power Mac G5 has revolutionized the world of desktop computers. When it comes to power, it's a veritable monster. The 64 bit processor and high-bandwidth architecture brush aside the limitations and bottlenecks of other desktops. The Power Mac G5 truly heralds a new era in the world of computing."

– Mauro De Vito, WPP Group

"The G5 is the Ferrari of the Computerworld."

– Oliver Zihlmann, SonntagsZeitung



innovating digital storage

For over ten years, Amacom has been pioneering portable digital storage. Our products are highly regarded for their reliability, price and performance, offering real solutions for the digital user.

store - play - view

video · still images · music · business and personal data



DiViD Burner – Make backup copies of your Hollywood DVD movies.

Amacom's new DVD burner does everything you could ever want from a DVD or CD rewriter. It can create DVDs and CDs of professional home movies, picture slide shows, audio and MP3 music. It can copy any disc including all the latest Hollywood DVD movies, and it can burn them to all the major media types including DVD-R/RW, DVD+R/RW, CDRW and CD-R.

The DiViD has both USB2.0 and FireWire interfaces and with over £200 of software from Pinnacle and 321 Studios offers unbelievable value. The DiViD Burner is unbeatable as the complete solution to Create, Copy and Burn.

Currently available at the special offer price of £199 inc. VAT



ez²disk

USB2 and Firewire external portable hard drive

Capacities of up to 250GB

Robust and stylish aluminium enclosure provides excellent heat dissipation and shock absorbercy

Prices from £119.00



MiniStor

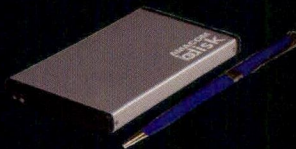
USB2 Flash Memory drive the size of a car key with password protection and/or 128bit software encryption at folder or file level

Capacities of up to 1GB and rising

No mains power required

Total security

Prices from £24.00



IOdisk

Pocket sized Hard Drive with integrated USB 2.0 interface

No mains power required

Capacities of up to 80GB

Supplied with stylish carry case.

Prices from £95.00



Flip2disk

Now up to 80GB

The ultimate in portable data storage and complete with disaster recovery & backup software 'FlipBack'

Connectivity: Choose from a selection of intelligent interface options

Shock and vibration resistant material

No mains power required & includes carry case

No excuses: backup, transfer, and secure your data today!

Prices from £147.00



For more information or to purchase visit

www.amacom-tech.com

or call **020 8993 7373**



AMACOM®

What readers are saying about Digital Creative Arts Special Edition:

"I recently purchased a copy of *Digital Creative Arts Photoshop Edition* at my local bookstore and was amazed that such a magazine even existed! I found this issue addressed so many of my needs as a designer." April Anderton, USA

"I have learned more from your excellent magazine than all the others put together." Leo Mahon, Ireland

YOUR EXPERT GUIDES

Introducing the team of Photoshop wizards who will show you the secrets of imaging sorcery



Sam Williams

As one of the triumvirate of graphic design geniuses behind leading new Media agency Magictorch and a veteran of some of the toughest briefs in editorial design, Sam is perfectly placed to show you how to recreate the stunning artwork on this issue's cover on page eight.



Frazer Irving

One of the UK's leading comic book artists, Frazer has inked heaps of comic strips for legendary publications such as *2000 AD* and *DC Comics*. In a first for *Digital Creative Arts Special Edition*, he shows you the comic book artist's tricks of the trade in Photoshop on page 64.



Simon Danaher

Simon is an acclaimed 3D artist and the author of several respected technical tomes including *3D Wizardry*. With years of experience with computer graphics and an encyclopaedic knowledge of Photoshop, he is the ideal person to demystify the art of touching up 3D renders on page 72.



Jason Cook

A digital illustrator and pixel pusher of six years, Jason Cook has provided illustrations for some of the biggest clients around, including Lego, IBM and Natwest Bank. In this issue of *DCA SE* he shows you how to create striking imagery in Photoshop CS on page 44.

Digital
CreativeArts special edition

Welcome



Our first Photoshop issue, with its focus on the different disciplines that Photoshop could be used for, proved so popular with readers that we're back with another image-editing and graphic design extravaganza, only this time the focus is firmly on the latest version of Photoshop – Photoshop CS.

This new edition of Adobe's imaging powerhouse has managed to achieve the seemingly impossible by improving on the standards set by Photoshop 7.0. You'll find Photoshop CS offers souped-up performance, several exciting new tools for digital photographers and digital artists alike, and a number of interface enhancements. Better still,

we've got ten expert tutorials in this issue that show you how to get the most out of it!

As always, we've assembled some of the finest Photoshop artists and writers around to bring you the lowdown on creating artwork and improving images with Photoshop. Leading design agency Magictorch kicks off our roll-call of professional Photoshop tutors with a guide to creating this issue's sensational cover artwork on page eight. Then we've got a comic book art masterclass from renowned *2000 AD* illustrator Frazer Irving on page 64. And 3D expert Simon Danaher reveals the Photoshop tricks that 3D artists use to finesse their renders on page 72.

Elsewhere you'll find primers on using ImageReady CS, Photoshop's sister program, to prepare graphics for the Web; guides to some of the hottest new features in Photoshop CS; and in-depth features on how to get the most out of Photoshop CS. It's not possible to cover all Photoshop's applications and features in one issue, but we guarantee you'll be creating better images once you've finished with this magazine.

Before I go, don't forget to email me at the address below if there's a specific Photoshop tutorial you'd like to see in future editions of the magazine.

Paul Newman, Managing Editor
pauln@paragon.co.uk

Digital
CreativeArts special edition

Highbury Entertainment Limited,
Paragon House,
St Peters Road, Bournemouth
Dorset BH1 2JS
Tel: +44 (0) 1202 299900
Fax: +44 (0) 1202 299955
Web site: www.paragon.co.uk

CUSTOMER SERVICES

If you have a query regarding a subscription or a back issue, or would like to place an order, please contact the subscription hotline on **0870 444 8682** or email dca@cisubs.co.uk. For all other queries, including missing covermounts, please contact Customer Services on **01202 200200**, or by emailing subs@paragon.co.uk

MAGAZINE TEAM

Managing Editor Paul Newman
01202 200250 pauln@digitalcreativearts.co.uk
Group Art Editor Paul Ridley
Sub Editor Colleen Johnson
Designers Andy Mountain, Nick Trent
Cover Art Sam Williams (www.magictorch.com)

CONTRIBUTORS:

Ross Andrews, Jason Arber, Jason Cook,
Simon Danaher, Hannah Gal, Frazer Irving, Cliff Joseph,
Andy Stewart, Thomas Watson, Sam Williams

CREDITS:

Thanks to Lucy Mitchell at Firefly and Alan Leonhardsen at Holdan

COVER DISC SUPPORT:

If you have any difficulty with your free CD, please refer to the disc pages for contact information

COVER DISC PRODUCTION

Digital Projects Manager Lee Groombridge
Multimedia Editor Stuart Dixon

ADVERTISING

Advertising Manager Lucy Laverack
01202 209363 lucy@paragon.co.uk
Advertising Sales Executive Nathan Burgess
01202 200220 nathan.burgess@paragon.co.uk
Ad Copy Controllers Lauren Deans

PRODUCTION & DISTRIBUTION

Production Manager Dave Osborne
Bureau Manager Chris Rees
Scanning/Prepress Wesley Neil
Circulation Manager Tim Harris
Tel: +44 (0) 1202 200200
Fax: +44 (0) 1202 200217

INTERNATIONAL LICENSING

Digital Creative Arts Special Edition is available for licensing overseas. For details, please contact:
International Manager Cathy Blackman
Tel: +44 (0) 1202 200205
Fax: +44 (0) 1202 200217
Email: cathb@paragon.co.uk

DIRECTORS

Editorial Director Damian Butt
Production Director Jane Hawkins
Circulation & Marketing Director Kevin Petley
Advertising Director Peter Cleall
Art Director Mark Kendrick
Finance Director Steven Boyd
Managing Director Mark Simpson

Printed by **St Ives (Andover) Limited**,
West Portway, Andover, SP10 3SF
Distributed by **Seymour Ltd**,
1st Floor, 86 Newman Street, London W1P 3LD
Tel 020 7396 8000

PLEASE READ OUR SMALL PRINT

All text and layout remains the copyright of Highbury Entertainment Limited. *Digital Creative Arts Special Edition* cannot accept responsibility for any unsolicited material or transparencies. *Digital Creative Arts Special Edition* is fully independent and its views are not those of any company mentioned herein. All copyrights and trademarks are recognised and all images are used for the purpose of criticism and review only. No part of this magazine may be reproduced without the written permission of the publisher. *Digital Creative Arts Special Edition* accepts no responsibility for inaccuracies or complaints arising from advertisements within the magazine.

© 2004 Highbury Entertainment Limited
Digital Creative Arts Special Edition ISSN 1740-2778

Highbury Entertainment Limited is a wholly owned subsidiary of Highbury House Communications PLC. Registered in England. Registered Number 2483576. Registered Office: The Publishing House, 1-3 Highbury Station Road, Islington, London N1 1SE.



is this one yours...?



1 Europe's
market leader
in video, photo and music software*

Digital Video made
easy
★★★★★
Editor's choice

Digital Video made
easy issue 13
"Every part of this program is
overflowing with features
and extras... 90%"

Microsoft® Windows® XP
The Official Magazine
Windows XP magazine (May 2003)
said of Movie Edit Pro 2004's
predecessor "sixty pounds?
We'd pay £600 - an absolute bargain."

Platinum
award
★★★★★
PC Answers

PC Answers April 2003*
"It's packed with a stunning number
of features, and is one of the first
programs we've seen for a while
to live up to its claims as
everything you need."

WHAT
CAMCORDER
BEST BUY

What Camcorder May 2003*
"A superb budget offering that
provides the user with a quite
immense selection of features,
tools and innovation."

*Awarded to MAGIX video deLuxe 2.0 PLUS

MAGIX Movie Edit Pro

- ▶ Import and export digital & analogue video
 - ▶ Cut, edit & burn your videos on CD or DVD - 3 easy steps
 - ▶ Play your final home movie on your DVD player or PC
- Includes 16 Tracks, DivX™ Support, free Content CD and much more**
suggested selling price - £49.99

MAGIX

see. hear. feel. create

www.magix.com

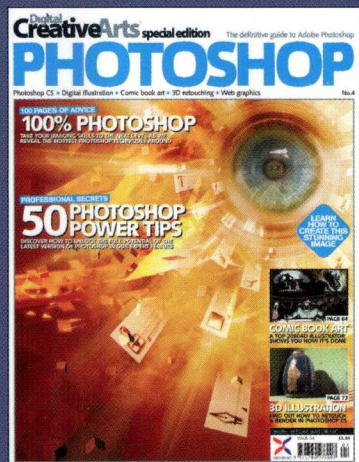
PC WORLD
The Computer Superstore

Order now - FREEPHONE: 0800 056 1799

www.fasttrak.co.uk

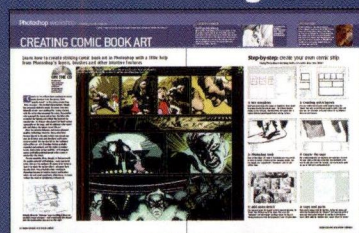
amazon.co.uk
and you're done.™

WHAT'S ON THE COVER

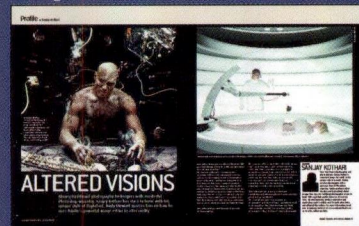


08	CREATE THE COVER
34	HOW TO CREATE A STUNNING PHOTOMERGE
44	CREATE A STRIKING DIGITAL ILLUSTRATION
40	USING LAYER COMPS IN PHOTOSHOP CS
52	COMPOSITE IMAGES TO MAKE NEW ARTWORK
56	50 PHOTOSHOP POWER TIPS
64	COMIC BOOK ART
72	3D ILLUSTRATION
78	OPTIMISE WEB GRAPHICS WITH IMAGEREADY

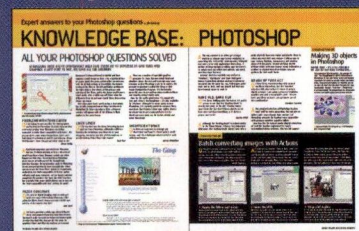
Professional insight...



Inspirational advice...



Your problems solved...



Digital Creative Arts Special Edition 04 Contents

Discover what's in store for you in this issue of *DCA SE*

➤ Essentials

08 Create our cover

As is the way with our Photoshop issues we bring you another chance to learn how to create our stunning cover imagery. This time out expertise is provided by Sam Williams, from top design agency Magictorch. He shows you how to use the Transform tool, filters and perspective grids to create a riot of stunning colour and motion

16 Power up Photoshop

Don't be satisfied with Photoshop's existing toolset when you can take advantage of actions, brushes and plug-ins to increase your productivity. We show you how to extend the power of Photoshop in this expert feature

20 Profile – Sanjay Kothari

Sanjay Kothari has produced stunning digital artwork for an impressive roll call of clients, including Samsung and *Time* magazine. Here he tells us how he developed his technique of blending photographic elements with digital elements and how he made the transition from ornithology to Photoshop

25 Workshops

We've got 12 great workshops for you this issue, spanning a variety of different creative disciplines including Web design, digital illustration and comic book art. From digital photograph manipulation to high-end 3D work, our guides will take you on a journey through Photoshop and spur your creativity on

56 50 Photoshop CS Tips

Prepare to take your Photoshop skills to the max as we present 50 brilliant ways to get so much more from the program. Along with providing essential primers on how to get the most out of layers and filters we also speak to the experts to get their advice on generating brilliant results from Adobe's imaging powerhouse

70 Subscriptions

If you enjoy *Digital Creative Arts Special Edition* then why not subscribe to our sister title *Digital Creative Arts*, which is published on a more regular basis. You'll get nine issues and nine CDs for just £26.96 – a saving of 50 per cent

90 Knowledge Base

Photoshop can be fiendishly difficult to master and with so many menus and different ways of doing things it's easy to get lost. If you're struggling, head to our Knowledge Base section and let our resident experts put you back on track. This issue we look at file formats, printing solutions and advice for applying filters

98 Next issue

We're putting Apple's Final Cut Pro video-editing software under the microscope in the next issue of *Digital Creative Arts Special Edition*. Find out when its out and how to reserve your copy here

➤ 97 On your free CD

This issue's disc is rammed with over 640Mb of Photoshop goodness. Get a full breakdown of what's on the disc and how it all works on page 97

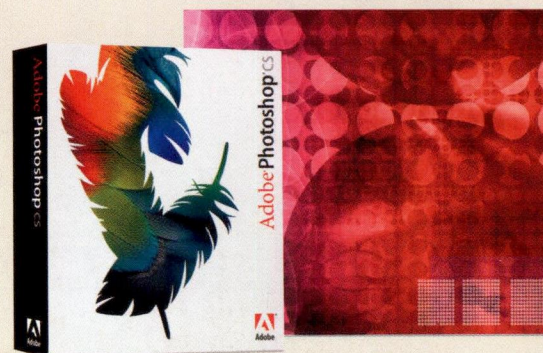
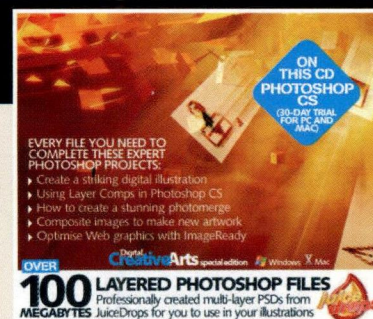
Adobe Photoshop CS (30-day trial)

Pride of place on this issue's disc is the PC and Mac demo of the latest version of Adobe Photoshop. Here's a quick guide to some of the exciting new features:

- Create dazzling photostitches with the photomerge tool
- The ability to run text along a path for the first time
- A revamped file browser for managing your images
- Layer Comps – a new way to present variations of artwork

JuiceDrops layered Photoshop files

Kick-start your creativity with five awesome layered PSD files from leading royalty-free stock art provider Digital Juice. These stunning files each have multiple layers and can be used in any project.



Create the cover workshop ➤ create this stunning image

[writer: Sam Williams | hardware: Windows XP PC | software: Photoshop CS]

CREATE THIS STUNNING ILLUSTRATION

Photoshop CS contains a wealth of tools for creating dynamic illustrations. Here we show you how to harness them and recreate this breathtaking artwork



ON THE CD

cubes.tif
cubes02-05.tif
eye.jpg
grid.jpg
icons.tif
lens.jpg
Lens02.jpg
radial blur.jpg
render01-02.tif
sun.tif

■ Following this workshop will not only allow you to recreate this stunning slab of digital artwork, but it will also give you a grounding in the Transform tool and how to use filters for maximum creative impact

YOUR GUIDE

SAM WILLIAMS is one third of Brighton-based illustration collective Magictorch. After four years, Magictorch is now headed into Europe, with Mike Chipperfield setting up an office in the south of France and leaving the two Sams to argue over tea-making duties in the Brighton office. Magictorch specialises in high-quality Photoshop, 3D and vector artwork, and clients include *New Scientist*, *iCreate* and, of course, *Digital Creative Arts*.



As image manipulation programs go, Photoshop is the daddy. It's the place to take all the separate parts of an image – be it photography or 3D renders – to be pulled around, stretched, dissected and generally beaten into a finished piece.

Never more so has this been the case than with the arrival of Photoshop CS. Boasting even more image manipulation tools, it's now possible to go one step further and take out any in-between tweaking or adjusting with other programs.

In this tutorial we're going to use Photoshop to create a classic piece of digital art, complete with flying particles and plenty of fire and brimstone. By combining 3D renders, photography and elements created entirely in Photoshop, we will show you

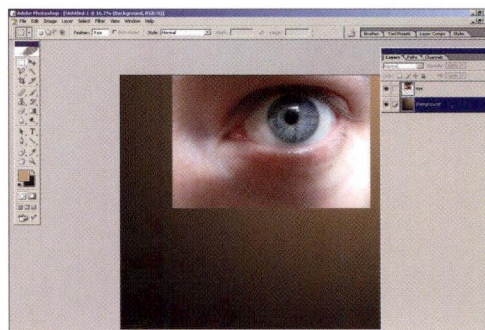
exactly how to bring a real sense of dynamism to your creative compositions.

An image of this kind relies heavily on a strong sense of depth and movement, and this will be one of the focuses of this tutorial. A careful use of filters – always a subject set to divide audiences (and in this case mainly Blur) – can enhance and also create a sense of motion. By combining this with the Transform tools it's possible to turn flat graphics into a kind of 'big bang' of flying icons.

While there aren't thousands of different techniques used to create this image, there are plenty of layers. As such, while you should always be flexible enough to allow the happy accidents to occur, a solid system of organisation and structure is necessary to prevent the descent into chaos and unwieldy file sizes. ■

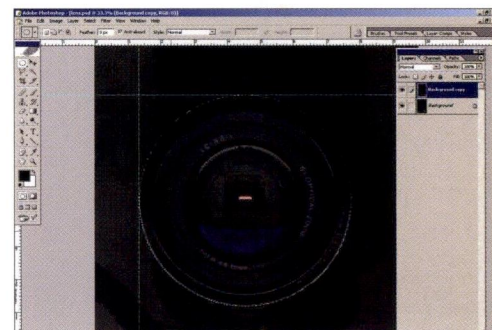
Step-by-step: create a stunning digital illustration

Our image creation odyssey will commence with photos of an eye and a camera lens. Liberal use of the Transform and Eraser tools will help us to reach our destiny...



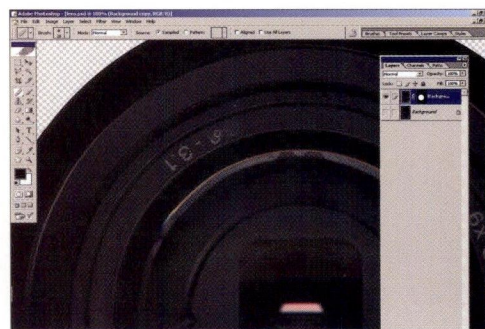
1: Setting up

First up, create a new document of 31.6cm wide by 30.7cm with a dpi of 300. Using a light brown for the foreground and black for the background, use the 'Gradient' tool to create a diagonal gradient from the top right to bottom left of the canvas. Open the file 'eye.jpg' and drop it into the document.



2: Making the lens

Next, open the file called 'lens.jpg', duplicate the layer and use guides to mark the edges of the lens. Use the 'Elliptical Marquee' tool to select the part of the lens you want to use, ensuring you hold down Shift while making the selection so that it's a perfect circle.



3: Removing unwanted details

Invert your selection and make a layer mask ('Layer', 'Add Layer Mask', 'Reveal All'), and now remove the unwanted portion of the scan. Use the 'Healing' brush to remove any unwanted text and dust from the scan. Once you're happy with this, duplicate the layer onto the main document ('Layer', 'Duplicate Layer').



4: Framing the eye

Reduce the opacity of the lens and position the eye behind it. Using the 'Transform' tool ('Control/Apple+T'), reduce the size of the eye by about 10%. Make a selection based on the lens mask and remove the area around the eye. Put the lens opacity back to 100% and use the 'Eraser' to remove the central portion to reveal the eye.

CREATE OUR COVER IMAGE

Expert advice for creating layered artwork

Here are a few things you should consider if you want the creation of your image to go smoothly...

Guides

If, as in this case, your image is going to run over two pages, it's important to make sure the page break doesn't cut across the focal point. Use guides to mark these areas by making the rulers visible ('Ctrl/Apple+R') and drag the guides to the required point

Naming layers

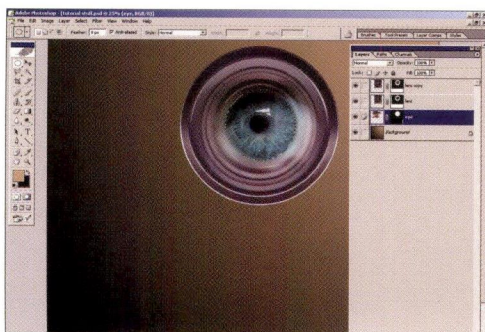
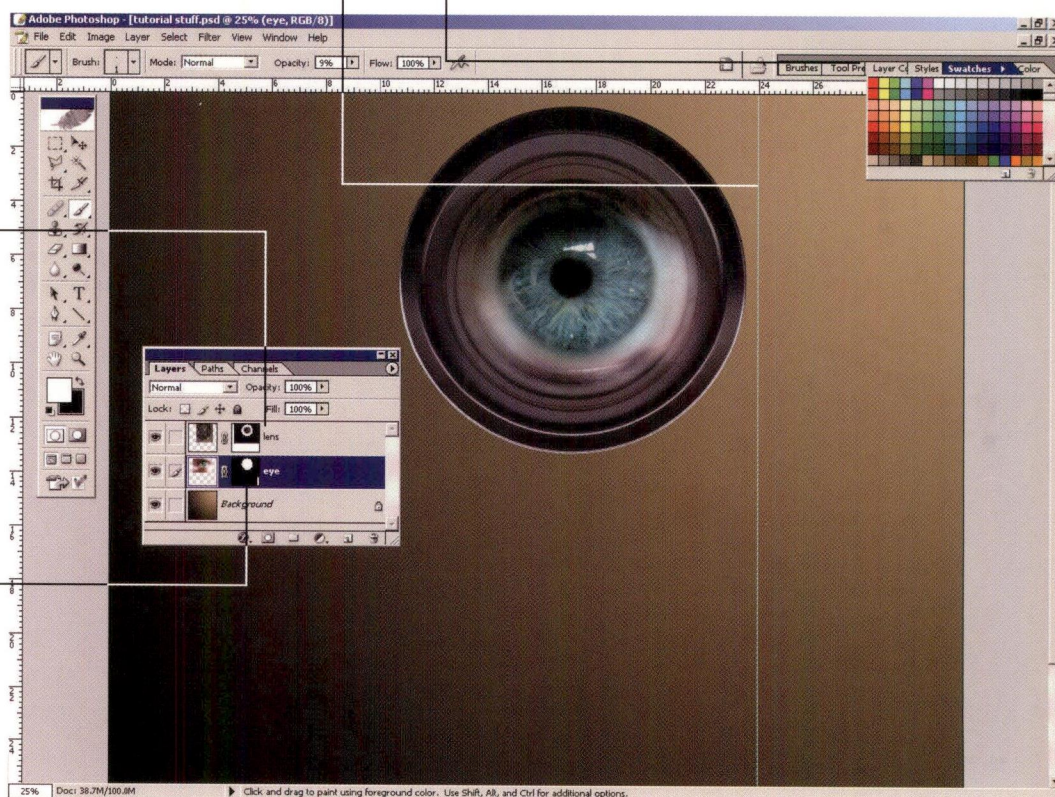
In an image with multiple layers such as this one, it's vital to keep track of which layer is which. Name each layer as you create it – you're given the option to do this when duplicating from one document to another – to prevent the frustration of searching for a particular layer

Masks

Whenever you are erasing areas of a layer – and unless you are confident that you won't need that portion again – it's advisable to use layer masks. Using masks allows you to remove areas of the layer and then reintroduce them if necessary

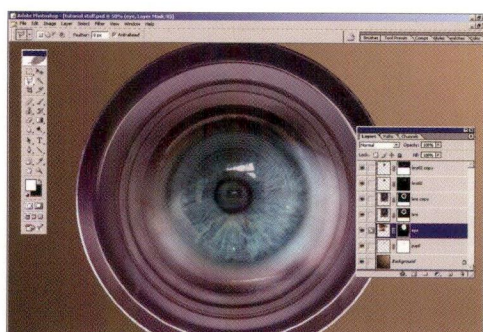
Palette well

Organising your workspace is vital: you don't want loads of palettes clogging up your view of the image. It is important, however, to have these palettes readily available at the click of a button. Use the 'Palette Well' to house these or stack up the important ones in a single dock



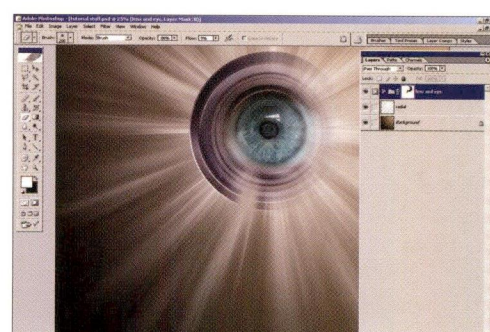
5: Colouring the eye

Duplicate the lens and set to 'Screen'. Select the iris of the eye with the 'Elliptical Marquee'. Feather the selection by about 50 ('Select', 'Feather') and use the 'Photo' filter ('Image', 'Adjustments', 'Photo filter') to adjust the colour. We're using the underwater setting with a strength of 78.



6: Adding detail

Open the file 'lens02.jpg', place it at the top of the layers and set to 'Screen'. Duplicate the layer, and using the 'Transform' tool and the 'Eraser', position the concentric circles of the lens over the iris. Remove the pupil from the eye and place another version of 'lens02' behind to complete the effect.



7: Layer sets and radial blur

Create a layer set ('Layer', 'New', 'Layer Set') and place all the eye- and lens-related layers into it. Open the 'radial blur.psd' file, place behind the 'Eye' layer set and set to 'Screen'. Add a layer mask to the layer set and, using the 'Eraser', fade out the left-hand side of the lens so the radial blur shows through.

CREATIVEPRIMER

Masks

Make sure you are familiar with the icons for the mask and the layer – there's nothing worse than happily erasing away, only to find that you've rubbed away at the layer itself. It's also possible to unlink the mask from the layer, giving you the freedom to move either independently of the other. Click the 'Chain' icon between the two to achieve this.



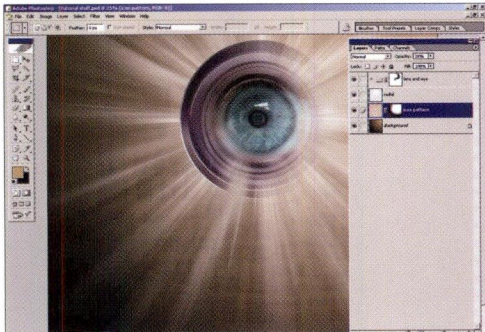
SAYWHAT?

ALPHA CHANNELS

Alpha channels are automatically created when you save a selection – and that selection will become a template which can be preserved for future use. Alpha channels enable the user to lift various key elements from a previously flattened image.

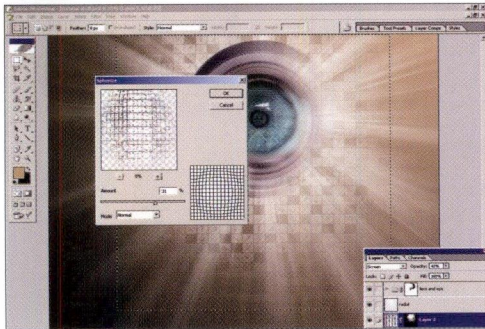
CMYK AND RGB

Although most printing uses CMYK, images are generally created in RGB because it reduces the file size. Converting your image from RGB to CMYK can frequently alter colours. To preview the CMYK mode, hit 'Ctrl/Apple+Y'.



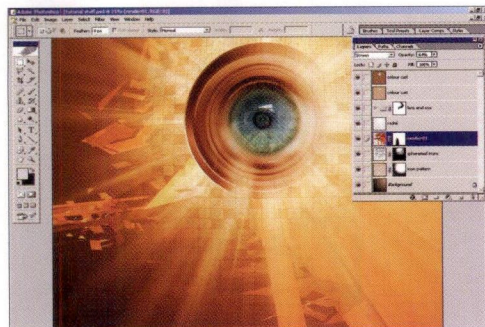
8: Pattern brushes

Open 'icons.tif'. Invert it ('Apple/Ctrl+I'). Turn it into a pattern brush ('Edit', 'Define Pattern Brush'). Create a new layer in the main document. Place it behind the blur. Make the foreground colour pale brown. Use the brush to put a rough pattern over the background. Use the 'Eraser' to fade it into the black.



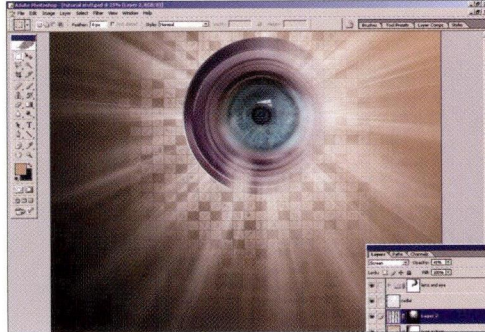
10: Spherize

To add a bit of interest and depth to this pattern, use the 'Marquee' to draw a rough rectangle round the visible portion of the pattern and apply a 'Spherize' filter to it. Experiment with the strength to gain the desired effect. Move the layer so the centre of the sphere is behind the eye.



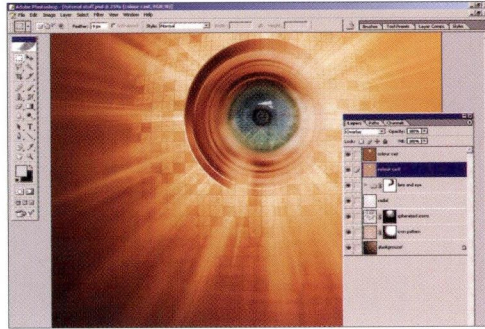
12: Adding renders

Open 'render01.tif'. Load selection 'Alpha 1' ('Select', 'Load Selection', 'Alpha1'). Copy and paste the layer to remove the object from its background. Duplicate the layer into the main document. Place above the spherized icons. Erase unwanted portions of the render and set to 'Screen' at '64%' opacity.



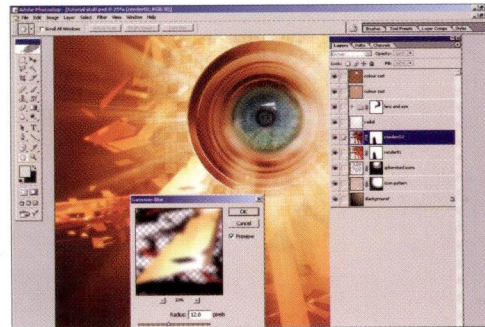
9: Pattern fill

Use the original of 'icons.tif' to define a pattern ('Edit', 'Define Pattern'). In the main document, make a layer above the previous one. Fill it with the pattern ('Edit', 'Fill', 'Pattern'). Set to 'Screen' and cut away some of the icons until you have a 'crossword' pattern. Use the 'Eraser' to fade the edges.



11: Adding colour

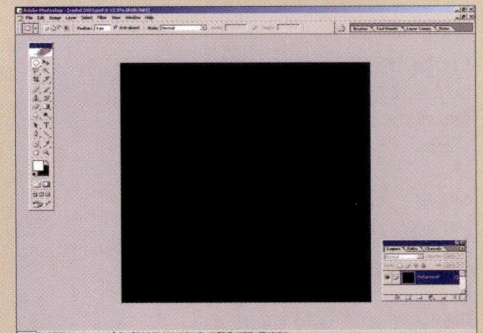
The image is looking a little grey at the moment, so it's time to add some colour. Create a new layer above all the others, fill with a light brown and set the blending mode to 'Overlay'. Repeat, this time using a darker brown. Erase the area over the eye so the blue comes through.



13: Adding some blur

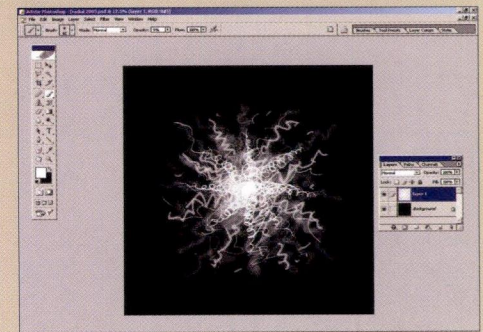
Repeat the above step with 'render02.tif' – this time leaving the opacity at '100%' – but give the render a slight blur. In this case Gaussian blur ('Filters', 'Blur', 'Gaussian Blur') with a strength of '12.6'. Doing this softens the edges of the renders while maintaining the detail, giving them a neon-like glow.

Discover how to create a Radial blur



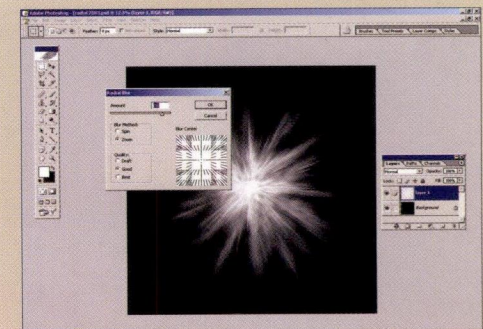
Setting up

Radial blurs are a good way to add movement and an explosive edge to your image. Make a new document – a square is preferable. This one was 5,000 pixels x 5,000 pixels. Set the background to 'Black'. Set your foreground colour to 'White'.



Making marks

Create a new layer, and using the 'Brush' tool draw a series of squiggles radiating from a central point. Experiment with different thickness and opacities for the lines – this will help to add variation to the final result.



Adding the blur

Once you're happy that you've done enough, open the 'Radial Blur' dialog box ('Filter', 'Blur', 'Radial Blur'). Set the blur amount to '86', the method to 'Zoom' and the quality to 'Good' – unless you've got a supercomputer – and hit 'OK'. Reapply the blur to get smoother results.

CREATE OUR COVER IMAGE

Keeping it together

As your image nears completion it becomes even more important to keep an eye on the different elements

Cropping your image

Regular cropping of any excess information that extends beyond the borders of the canvas is always a good idea. Select the canvas ('Select', 'All') and crop ('Image', 'Crop')

Hiding palettes and navigating the image

To view the image without any palettes or toolbars blocking your view press the 'Tab' key to hide/reveal these elements. Use the 'F' key to view your image on a grey or black background. Using the 'Hand' tool in this state allows you to move the edges of the image into the screen's centre

Linking layers

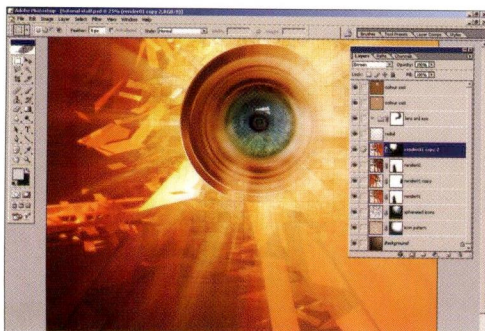
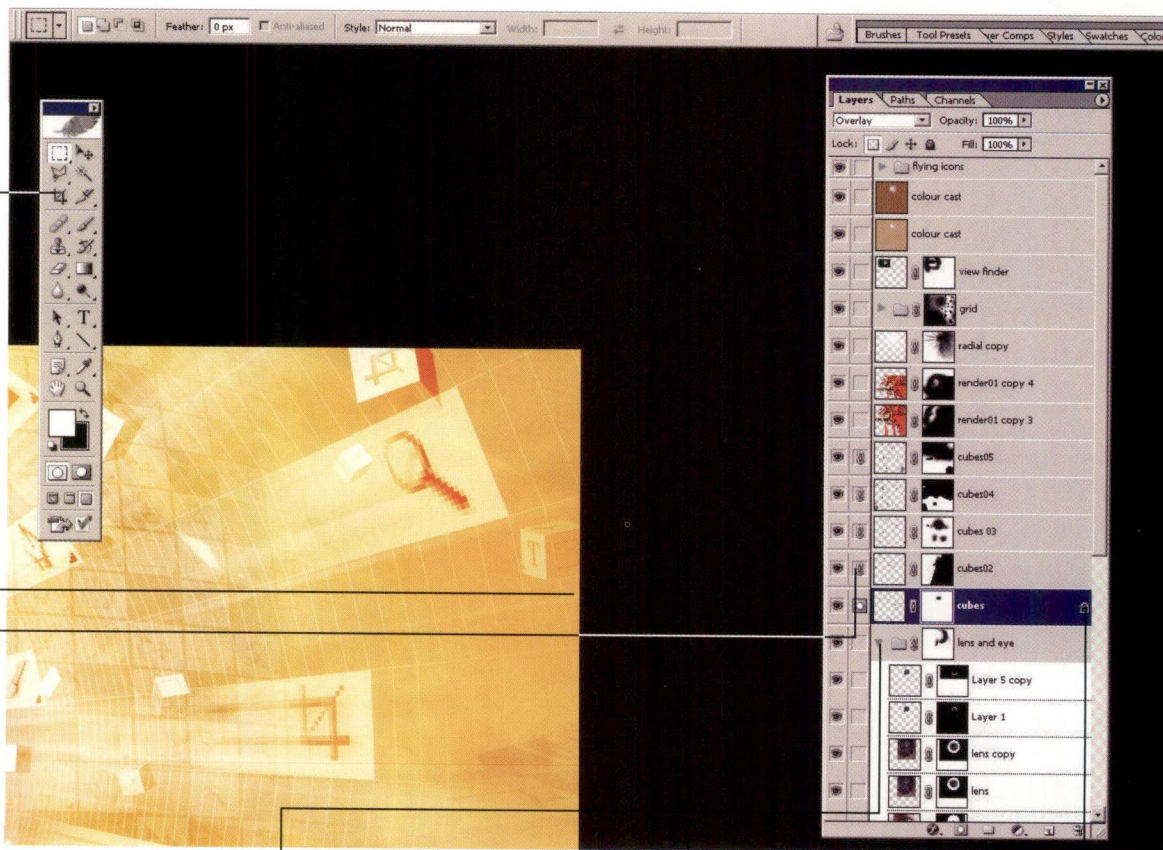
By activating the 'Link' button you can move layers as a single entity and even apply transformations to them while keeping them as separate layers

Layer sets

By using layer sets you can not only clean up the 'Layer' palette, but again move separate layers as one. It's also possible to apply a mask, enabling you to remove a uniform area from multiple layers which may already have masks of their own

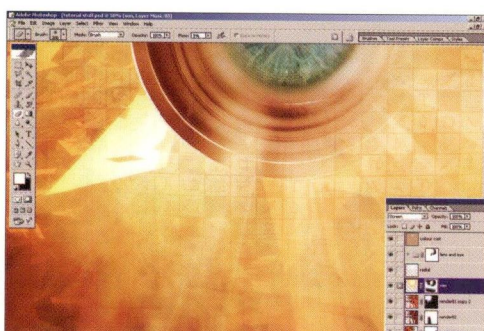
Locking layers

To fill a layer with 'Colour/Apply a filter' while maintaining its transparency, use the 'Lock Transparent' button at the top of the 'Layer' palette. Other functions on this row include the ability to lock the layer's position completely so that it cannot be moved.



14: Duplicating renders

Try duplicating the render layers and experiment with opacity, blending modes, layer order and even position and rotation. By doing this you can not only easily add detail to empty areas, but also increase the sense of depth.



15: Adding fire

Open 'sun.tif'. As before, use the alpha channel to remove the sun from its background. Duplicate the layer and place above the renders. Set to 'Screen' and move the layer so the centre of the render is behind the eye. Using the 'Eraser', remove the solid white centre, leaving only the wispy outer edges.



16: May the cube be with you

Now it's time to start adding some icons to the image. Open the file called 'cubes.tif' and cut out once more using alpha channels and place above the lens and eye. Set the blending to 'Overlay'. This immediately integrates the cubes into the image, because they are affected by the layers beneath them.

CREATIVEPRIMER

Brushes

When erasing information from a layer, or indeed using brushes of any kind, it's worth taking time to define your own. Use the 'Brush' dialog box to define size and hardness. Building a comprehensive set of these will enable you to move quickly from fine to wider brushwork. If you don't want hard edges when using brushes, it's worth keeping the opacity of the brush right down to around 9%. This will ensure a smooth fade.



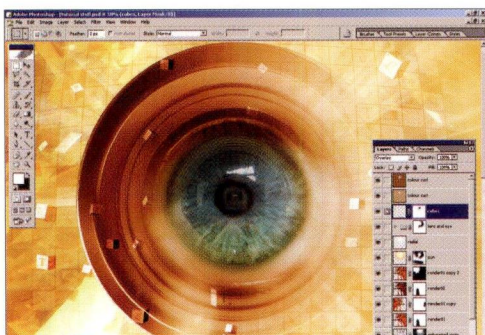
SAYWHAT?

TRANSFORM TOOLS

The 'Transform' tools are one of the building blocks of Photoshop. Use these to manipulate elements of your artwork – be it creating faux 3D with the 'Perspective' tool or the more mundane tasks like rescaling using the 'Scale' tool.

RASTERISING

Rasterising is the process of converting vector information to bitmap information; in Photoshop this applies most to type. Before type can be manipulated it must be converted to raster format (rasterised).



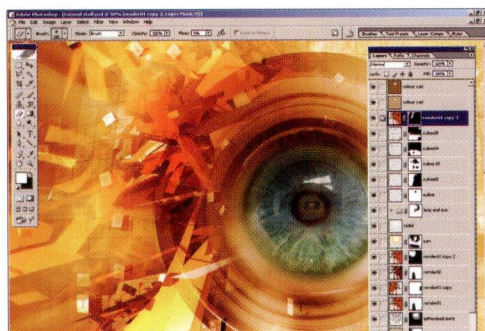
17: Clearing the way

Some of the cubes are over the iris, and because this is the focal point of the image it's important to keep it free of clutter. Remove these cubes with the 'Eraser'. That said, try fading some of the cubes at the outer edges of the eye to create a more gradual disappearance.



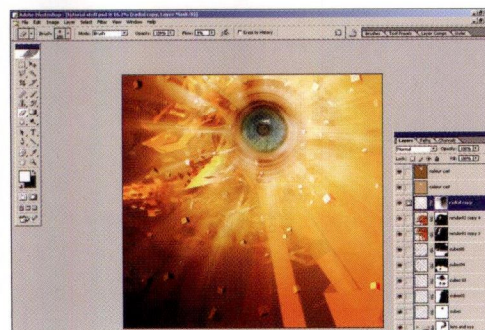
18: More cubes

Repeat the two previous steps with the files 'cubes02', 'cubes03', 'cubes04' and 'cubes05'. There are a lot of cubes here, and there's a fine line between explosive and just messy. Be selective about which cubes to use and which ones to remove – you don't need to fill every inch of space.



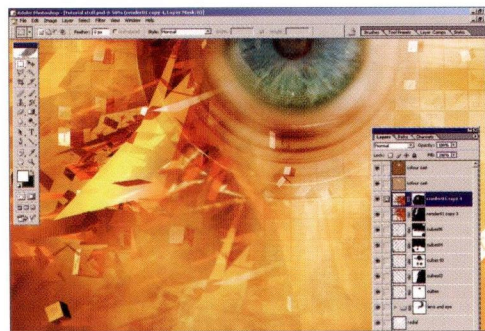
19: Blending in

The left edge of the lens is sticking out a bit, so we need to blend it into the image more. Start by simply duplicating one of the layers of 'render01' and moving it above the cubes. Erase until all that's left is an area covering the left edge of the lens.



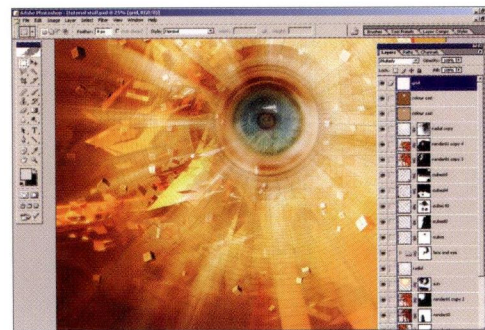
21: Blend it all together

Now duplicate the radial blur and place it above these new layers. Using the trusty 'Eraser', remove any blur on the right side or that sits over the eye. This should not only blend all the elements together, but also increase the sense of movement in that area. Now we need to start adding the flying icons...



20: Blurring the issue

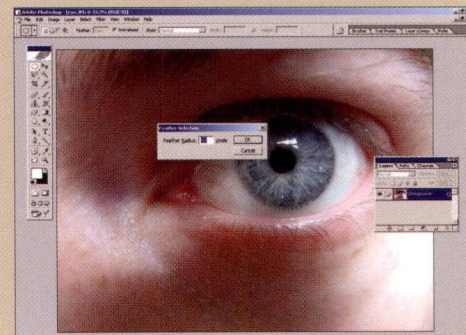
Duplicate this layer and move it down until the visible portion is over the bottom-left edge of the lens. Give this layer a Gaussian blur of around '4'. Continue to use the 'Eraser' to remove any overlap over the eye and unnecessary detail.



22: Perspective grid

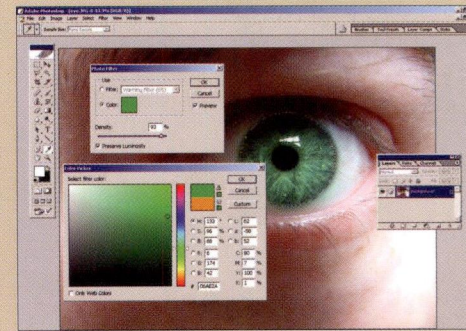
... first, though, it's necessary to set up a perspective grid to ensure all the icons follow the same path. Open the file 'grid.jpg' and duplicate it into the document above all the layers. Set to 'Multiply' and move it so that the lines point towards the centre of the eye.

Creative trickery with the new Photo filter



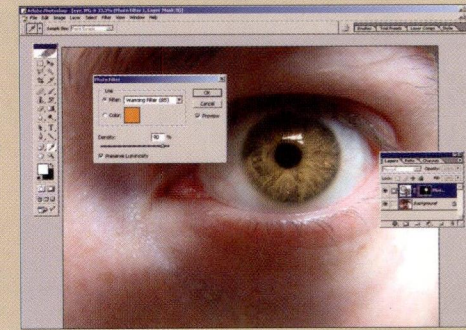
Make the selection

The 'Photo' filter is new to Photoshop and mimics the effects of placing coloured filters over the lens of a camera. To adjust a particular area, use either the 'Marquee' or 'Lasso' tool to make your selection. Feathering the selection will prevent any hard edges occurring.



Using the Photo filter

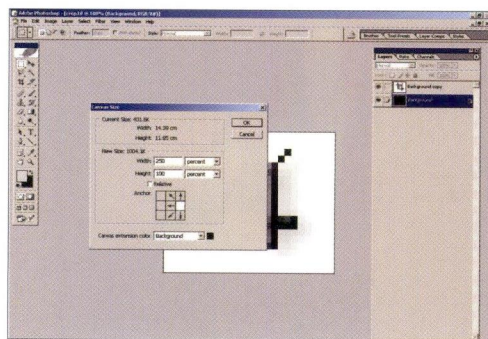
Open the 'Photo Filter' dialog box. There are a wide range of preset filters in the drop-down list, from warming filters right through to the underwater one used in this tutorial. You also have the option to select your own colour by picking the 'Color' box. Use the slider to adjust the density.



Adjustment layer

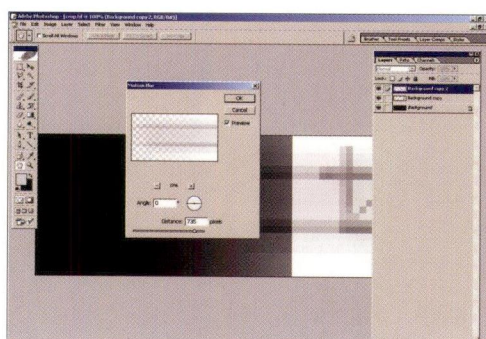
Set up the 'Photo' filter as an adjustment layer ('Layer', 'Adjustment Layer', 'Photo Filter'). This brings up the same dialog box but with the bonus of being on a separate layer, giving you the option of tweaking the effect even after you have hit 'OK' by simply clicking the 'Layer' icon.

CREATE OUR COVER IMAGE



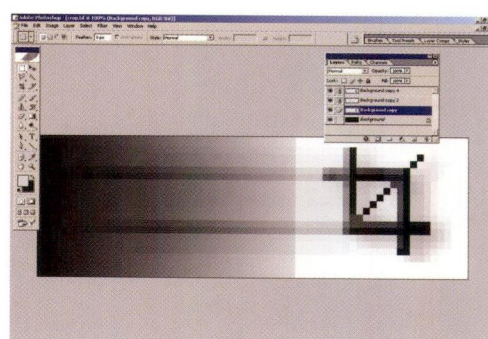
23: Making the moving icons

Before we add the icons we need to make them look like they're moving. First up, open 'crop.tif'. Duplicate the layer and fill the background with black. Now increase the width of the canvas by 250% ('Image', 'Canvas Size'). Make sure the anchor is on the right.



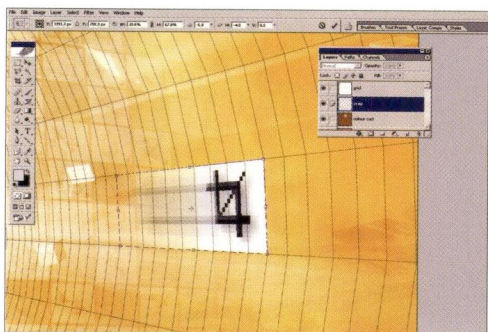
24: Applying motion blur

Duplicate the icon and apply a Motion blur ('Filter', 'Blur', 'Motion Blur') with a distance of '735' and an angle of '0'. Now move the blurred icon to the left until the blur fills the empty area of the canvas. Duplicate the original icon and place above the motion blurs. Set to 'Multiply'.



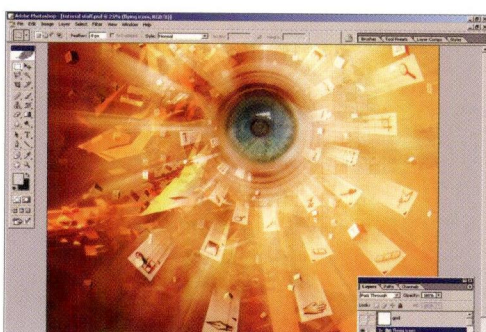
25: Merging layers

Select the bottom icon and click the box next to the eye in the other layers. This should give you a little chain icon in each of these - this means these layers are linked together. Now merge these layers together ('Layer', 'Merge Linked'). When you duplicate this layer it will lose the black background.



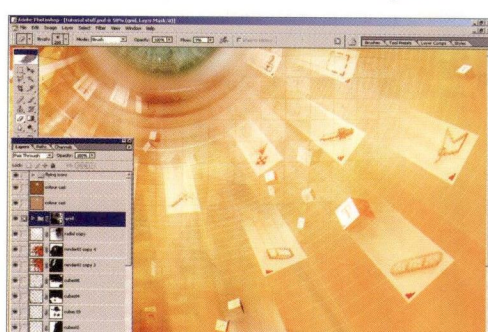
26: Flying icons

Duplicate the icon and place it under the grid in the main document. Move to the right side of the canvas. Using the grid as a guide, use the 'Transform' tool ('Edit', 'Transform', 'Distort') to distort the icon so that it gives the illusion of moving towards you.



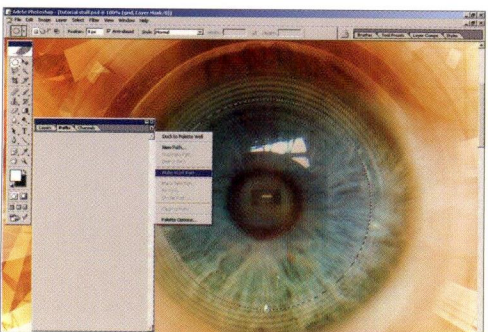
27: More icons

Repeat steps 23 to 26 with the other icons until you're happy there are enough. Make sure they are well dispersed and not bunched in one area. Link and merge the icon layers together. Set the layer to 'Soft Light'. Duplicate this layer and place it into a layer set called 'Flying Icons'.



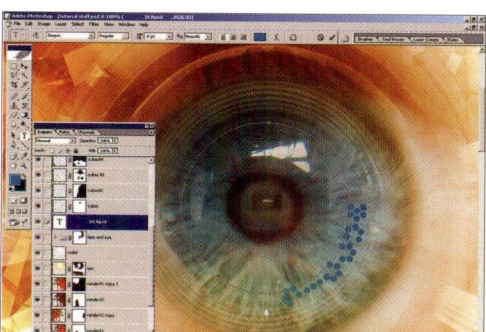
28: Reuse the grid

Use the perspective grid to add further detail. Move the layer under the colour casts, invert it so that the lines are white and set the blending to 'Screen'. Duplicate and apply a Gaussian blur of '0.8'. Now put both layers in a layer set, add a mask and erase any unwanted areas.



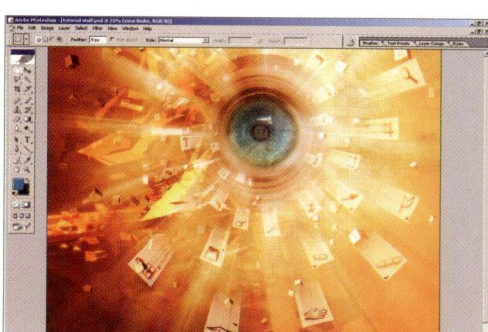
29: Making a path

As a final bit of detail, we're going to add some text-based graphics to the eye. Using the elliptical Marquee, make a circular selection over the iris. Select the 'Path' palette and, using the drop-down menu at the side, convert the selection to a path with a tolerance of '1.0'.



30: Text on a path

Select the 'Text' tool and move over the path. The 'Text on Path' icon should appear. Click the mouse to attach the tool to the path. Once you have put your text on - in this case we used an abstract font - rasterize the layer ('Layer', 'Rasterize', 'Text') and blur/layer up as you see fit.



31: Finishing the image

Move the text into the lens and eye layer set. Add any final graphics you may want to, and then you're ready to prepare the image for printing. Flatten the image ('Layer', 'Flatten Image') and convert to CMYK ('Image', 'Mode', 'CMYK'), save out as a separate file and you're done!

FREE DOMAIN NAME

WITH EVERY NEW WEB HOSTING ACCOUNT



Web Hosting from Cheapnames ...

Our web hosting packages offer outstanding value for money and the flexibility to grow, whatever your needs.

These features are standard:

- Free email and telephone support
- Free dial-up access
- Web-based email
- Unlimited email aliases
- Graphical site statistics
- Online control panel
- CGI - Perl 5.8
- Server Side Includes (SSI)
- Unlimited FTP Access
- Denial of Service (DOS) protection
- Redundant power supplies to servers
- Redundant connectivity

Many more great features! Visit www.cheapnames.co.uk/hosting.html

StartUpHost

- 100MB Webspace
- 5 Email Accounts
- 1GB Data transfer
- Web-based email
- Site Statistics
- Run own CGI

only
£4.99
per month
or £49.99 p.a.

StartUpHost+

- 200MB Webspace
- 10 Email Accounts
- 2GB Data transfer
- Secure webspace
- MySQL, PHP, ASP
- FrontPage Extensions

only
£7.99
per month
or £89.99 p.a.

BusinessHost

- 500MB Webspace
- 25 Email Accounts
- 4GB Data Transfer
- Web-based email
- Site Statistics
- Firewall

only
£13.99
per month
or £149.99 p.a.

BusinessHost+

- 700MB Webspace
- 50 Email Accounts
- 6GB Data transfer
- Secure webspace
- MySQL, PHP, ASP
- FrontPage Extensions

only
£16.99
per month
or £189.99 p.a.

Advanced Email Protection



Virus Scanning

Protect your computer against worms, viruses and trojans with our virus protection system.

Spam filtering

Advanced protection from unsolicited junk mail.



Broadband/ADSL products

Home500

- Up to 500kbs downstream, rate adaptive 64kbs-250kbs upstream

only
£24.99
per month

Office500

- Up to 500kbs downstream, up to 250kbs upstream

only
£39.99
per month



Turn your domain name into a fully featured email address

EconoMail

- 2 Email Accounts
- 20MB storage
- 5 forwarding addresses

only
£1.49
per month
or £14.99 p.a.

FamilyMail

- 5 Email Accounts
- 50MB storage
- 15 forwarding addresses

only
£2.99
per month
or £29.99 p.a.

SOHOMail

- 20 Email Accounts
- 300MB storage
- 75 forwarding addresses

only
£4.99
per month
or £49.99 p.a.

BizMail

- 50 Email Accounts
- 750MB storage
- 150 forwarding addresses

only
£9.99
per month
or £99.99 p.a.

"Cheapnames has proven itself many times to be fast, reliable and professional. Very easy site to use and the customer service is fantastic"

STS Business Services

CheapNames

call us today on **0870 120 8888** or order at **www.cheapnames.co.uk**

Namesco Limited. Est. 1996. Britannia Court, 5 Moor Street, Worcester. WR1 3DB. *Prices quoted exclude VAT at 17.5%. Cheques and major credit/debit cards accepted.

Photoshop feature » extend photoshop's capabilities

Extend Photoshop's

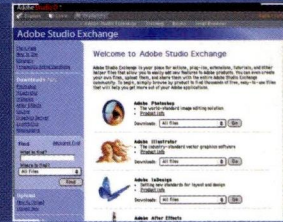
"Photoshop isn't just a program – it's more like a key to new creative processes, ideas, effects and images"

■ Kai's Power Tools have been around for a while, but still include some great effects, like this Lightning filter. The company was taken over some time ago by Corel – go to www.procreate.com

capabilities

WEBRESOURCES

Adobe Studio Exchange
<http://share.studio.adobe.com>
Boxtop Software
www.boxtopsoft.com/plugpage
Free Photoshop
www.freephotoshop.com
Download.com
www.download.com



Thanks to plug-ins, actions, brushes and styles, you can extend the capabilities of Photoshop and open up a whole new universe of creativity

There are a number of reasons why Photoshop is the best image editor available. One is its sheer power and scope, another is its direct, no-nonsense interface. There's also the vast range of third party support and expertise that's built up around it.

Photoshop isn't just a program – it's more like a key to new creative processes, ideas, effects and images. It's an 'extensible' application that's not limited to the tools and options built into the program itself. For a start, it supports plug-ins. These are mini-applications which can be invoked from within Photoshop to act on open image files. They range from special effects filters to entirely new features.

New ideas

The more recent versions of Photoshop go further still, with Actions, Brushes and Styles. Actions let you automate multi-step processes and apply complex effects with a single click of the mouse. Brushes can be customised with transparency, colour and random 'jitter' effects to produce realistic-looking natural-media paint effects on the one hand, and real-life objects like clouds, for example, on another. Styles, meanwhile, can apply drop shadow, glow, colour and other effects to image layers, either singly or in combination.

The point about Actions, Brushes and Styles is that all three can be saved as separate files for distribution. If you visit the Adobe Studio Exchange site, for example, you'll discover thousands – literally – of downloadable effects designed by professional artists and designers. And the great thing here is that while plug-ins are usually sold as commercial products, Actions, Brushes and Styles are free.

Photoshop isn't a closed application, then. It's at the centre of a huge creative industry, and a growing library of tools and effects. These add-on options don't just add to Photoshop's capabilities, they add to your creativity, by introducing effects, treatments and ideas you might simply never have imagined before.

Plug-in possibilities

Plug-ins are the heart of Photoshop's Effects system. If you take a look at the Photoshop directory on your hard disk, you'll see a 'Plug-ins' folder which contains many of the geometric, art and other effects you see on the 'Filter' menu.

Installing third party filters is as simple as dragging their icon into this 'Plug-ins' folder. More sophisticated

commercial offers will even come with an installer which does this for you. When you restart Photoshop, it'll recognise the new plug-ins, displaying them on the 'Filter' menu.

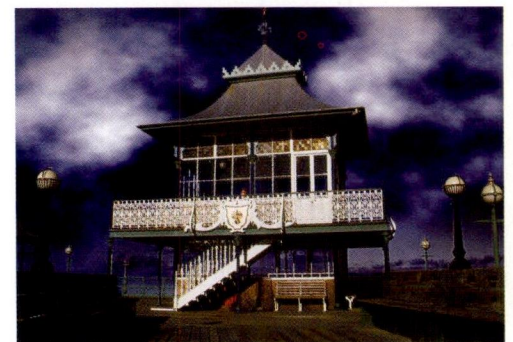
This plug-in system has proved so popular and useful that it's now a feature of most image editors. Indeed, the Photoshop plug-in file format has become a standard, so that Paint Shop Pro and other image editors are now Photoshop plug-in compatible – even Microsoft's beginner-orientated Digital Image Pro.

Most decent plug-ins are sold commercially rather than as free downloads. Nevertheless, there are a number that achieve effects difficult to produce any other way. Nearly all are available as trial downloads, so you can assess their usefulness first.

Mystical touch

Auto FX (www.autofx.com) produces some interesting plug-ins, including one called 'Mystical Lighting'. This offers a range of fantasy lighting effects, but note that it's a sophisticated plug-in with a price to match. Andromeda Software (www.andromeda.com) has another big list of plug-ins, including 'Lens Doctor', which fixes the barrel distortion that affects all wide-angle zoom lenses. Neither Auto FX's nor Andromeda's plug-in demos save changes to your image files, though – they simply show you what the plug-in interface looks like and how it works.

Not all plug-ins offer the classic Photoshop window style, but they all operate in the same way. You load an image, choose the plug-in from the 'Filter' menu and the plug-in takes over with its own window. ➤

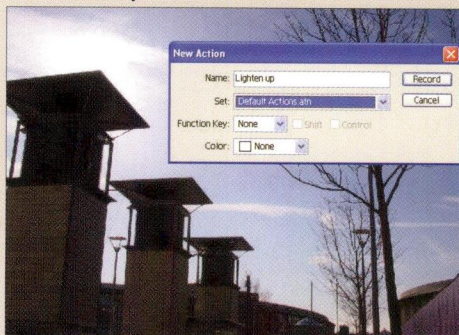


■ MuRa's 'Clouds' filter is far more impressive than Photoshop's own 'Render-Clouds' filter. It introduces randomness and perspective, as well as highly-controllable colours

EXTEND PHOTOSHOP

Lighten up!

If you can press 'Record' and 'Stop', you can create your own actions



Click Record...

We're going to use a custom sequence of commands to lighten the shadow areas in this image without affecting the highlights – and we'll save it as an 'Action' for use on other images, too. The first step, then, is to open the 'Actions' palette and click the 'Create New Action' button.



Edit as normal

We now carry out our Photoshop procedures as normal. Here, for example, we're using 'Color Range' to select the highlights, contracting then feathering the selection and copying it to a new layer. Now we can lighten the background layer without losing the image highlights.



Click Stop

We merge the two layers and click 'Stop' to save the action. The process we've just completed is fairly fiddly, but now we can just click our new action to select it in the 'Actions' palette, click 'Play' and let Photoshop do the whole lot automatically on any new images.

Once you have finished, the plug-in window closes and the image is then 'returned' to Photoshop.

Get in on the action

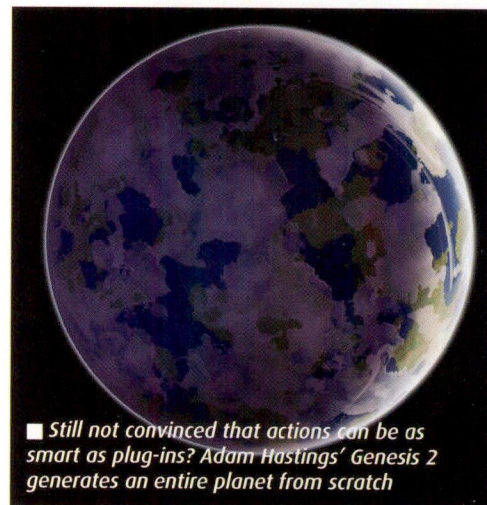
The third party plug-in industry does seem to have been in something of a decline. Not because of any downward spiral in the whole image-editing industry, but because Photoshop's Actions, Brushes and Styles, plus its increasing inbuilt sophistication, have taken over from plug-ins.

You might think the primary function of Photoshop's Actions option is to automate long, repetitive key sequences, but there's actually a lot more to it than that. Photoshop's capable of countless dramatic image effects using nothing more than the tools already provided by the program. The secret is the way these tools are used and combined. Actions provide a way for Photoshop experts all over the world to package up these sequences of operations – their own image-manipulation secrets and techniques – as a single file which can be distributed via the Internet. They're compact, offering very short download times, they're free, and they're available in ever-increasing numbers.

The importance of effects

If you doubt that automated sequences can really produce worthwhile special effects, Photoshop Elements relies on them. This program has a 'Filter' palette, just like Photoshop, but an 'Effects' palette, too. This includes a number of interesting image effects, including a 'Blizzard', text and texture effects and a variety of photo frames. All of Elements' effects are in fact actions.

You can't create your own actions in Photoshop



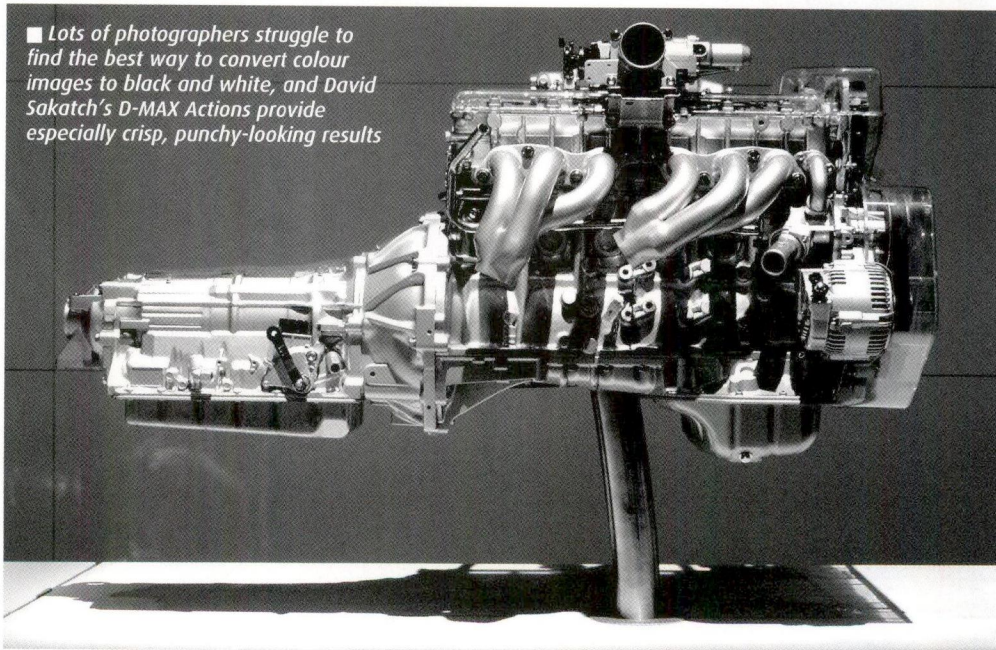
Still not convinced that actions can be as smart as plug-ins? Adam Hastings' Genesis 2 generates an entire planet from scratch

Elements, but you can in Photoshop. In fact it's remarkably easy, and our walkthrough to the left shows you how it's done.

If you don't believe that actions alone can produce some truly stunning effects, try out a selection from the Adobe Studio Exchange Web site. The best thing is that once actions are loaded, you can edit and 'reverse-engineer' them to find out how they work and maybe incorporate some of the techniques in your own work. The best actions are almost like Photoshop tutorials!

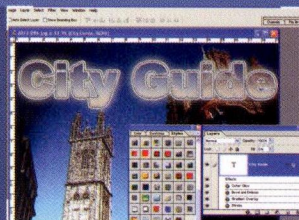
You can find actions to produce flames, explosions, painting and drawing effects, and even planets... Some are quite simple, others are complex and contain dozens of steps and processes. They're easy to install: just download the action file, open Photoshop's 'Action' palette's menu and load the new action.

Lots of photographers struggle to find the best way to convert colour images to black and white, and David Sakatch's D-MAX Actions provide especially crisp, punchy-looking results



A matter of style

Photoshop Styles can apply bevels, drop shadows, glows, gradient fills and more. You can apply them to text, vector or image layers – note, though, that they only work on layers, not background images. There's quite a range to choose from in Photoshop. Click on an object or layer in your image, open the 'Styles' palette and click on a style to see the effect. You can use the palette's pop-up menu to load more style sets or open style files downloaded from the Internet. The 'Layers' palette lets you examine and modify styles. To save a style, just drag a layer with the style applied onto the 'Styles' palette.



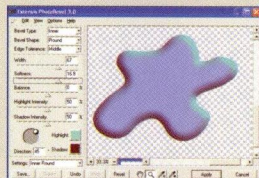
Photoshop's Styles is a flexible and powerful creative tool. The range of effects you can apply is simply enormous

Top five Photoshop plug-ins



1: Free plug-ins

URL: www.flamingpear.com
The Flaming Pear Web site is home to a host of innovative and useful plug-ins which can be downloaded in demo form. However, there's also a free collection which contains effects like ChromaSolarize, Tachyon and Ghost...



2: PhotoTools 3.0

URL: www.extensis.com
PhotoTools 3.0 is aimed more at graphic designers and Web authors, with a selection of texture, bevel and button-generation tools, plus a GIF animator. It also has a very good PhotoCastShadow tool which can create realistic perspective effects.



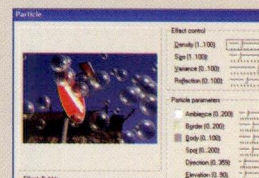
3: EyeCandy 4000

URL: www.alienskin.com
A big collection of wild and wacky effects, some of which are fully enabled in the trial download version. Alien Skin's one of the best-known plug-in companies – take a look at some of the other offerings on the site.



4: Cloud 2.2

URL: <http://mura.hey.to>
It's free, and it's awesome. Photoshop's Clouds filter can't produce anything like this. Cloud 2.2 can produce infinitely variable and utterly realistic cloud patterns for transforming those dull, washed-out skies in landscape shots.



5: Particle Plug-ins

URL: www.ulead.com
You may be surprised to discover that Ulead distributes a selection of free plug-ins. They're designed for other Ulead applications, but work well within Photoshop. Use the Particle plug-ins to create interesting snow, rain and bubble effects.

A few hours spent browsing the Adobe Studio Exchange site will reveal that actions can do the most amazing things, and it'll become apparent why they've taken over from conventional plug-ins.

Brushing up

While you're at it, take a look at some of the custom brushes you can download. Brushes are one of Photoshop's best-kept secrets. Scroll down the 'Brushes' menu and you'll see that there are many more shapes besides the standard circular brush sizes. Brushes can be used at any size, with variable softness, opacity and blending mode. Corel's Painter might be the best-known 'natural media' art package around, but for those who know how to exploit its brushes, Photoshop's not so far behind. And you can create and distribute brushes very easily indeed.

Photoshop's brushes are actually quite simple. They're greyscale images which take on the currently selected foreground colour when you paint with them. They incorporate transparency, so that a soft brush only partially covers up the underlying image at its edges.

To define a brush, create the brush shape on a white background. Now draw a rectangular selection marquee around it and choose 'Edit', 'Define Brush'.

Simple they might be, but the potential of Photoshop's brushes is far-reaching. Take a look at the Adobe Studio Exchange site and you see some of the things that are possible. For example, author Timo

"They might be simple, but the potential of Photoshop's brushes is far-reaching"

Mann's 'Bullethole' brushes offer seven different types of bullethole effects, while Jaime L produces a vast range of 'Walrus' brushes for clouds, horizons and even classic Vargas pin-up girls...

Once you've downloaded brush files, load them using the menu on the pop-up 'Brush' palette (select



Jaime L (aka 'Walrus') produces some great Photoshop add-ons. Why struggle with layers and masks when you can paint clouds on your skies with a brush?

the 'Brush' tool, then open the palette using the button to the right of the current brush on the 'Property' bar).

Improve your style

And there's more, thanks to Layer Styles. These let you apply drop shadows, bevels, glows, textures and other properties to layers in your images. With a single

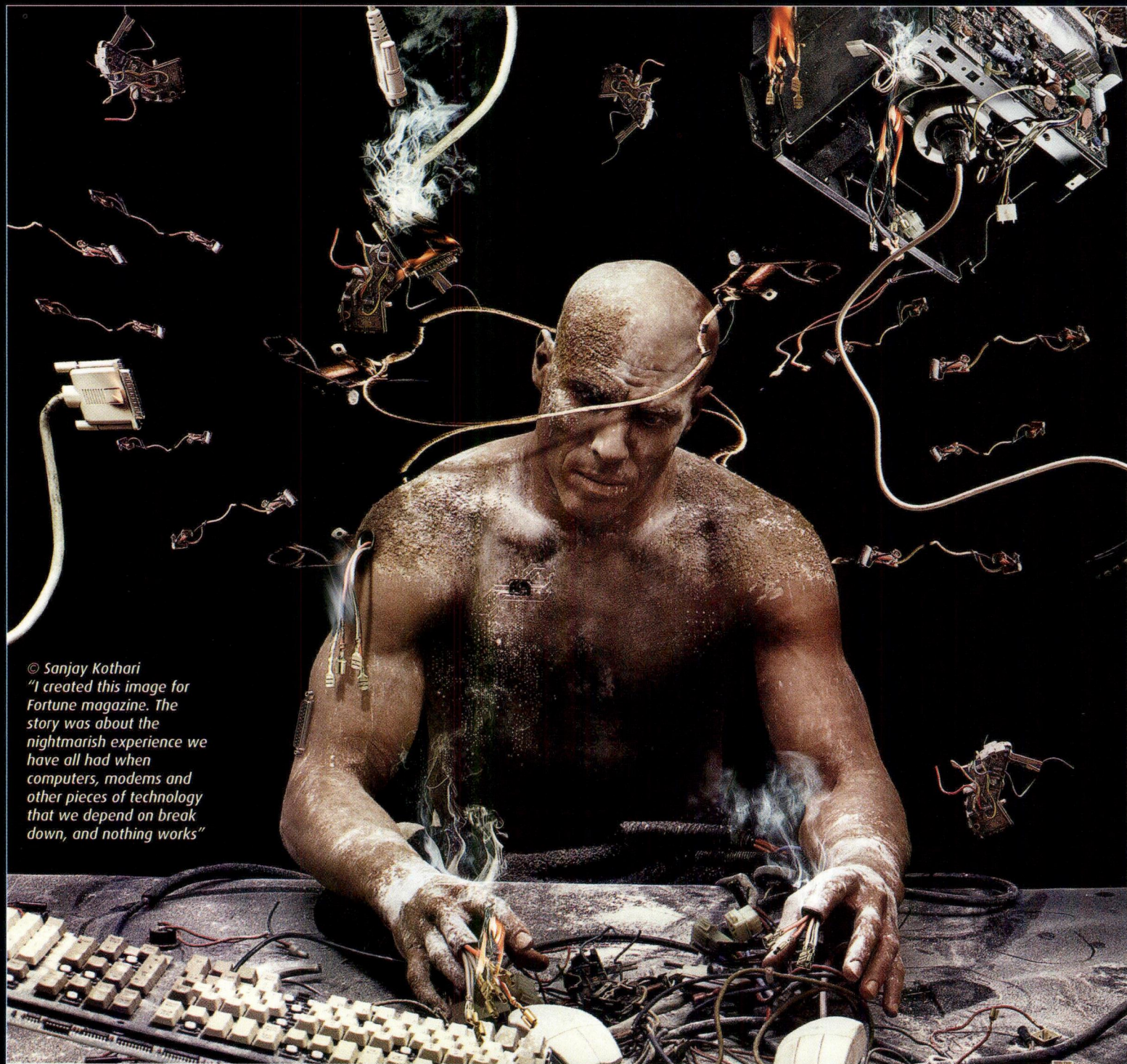
button-click you can make text, for example, look like wood, stone or even jelly. Layer Styles remain editable, so you can remove or modify them at any time and they can be combined and saved as separate files.

Typically, they're designed for adding texture and lighting effects to text layers and vector shapes. The

great thing about styles is that you can replace them in an instant, simply by clicking on a new style in the 'Styles' palette.

Styles can be downloaded just like brushes and actions, and in this case you load them via the 'Styles' palette menu. Remember that the styles you download don't do anything you can't do yourself. However, they'll give you ideas you might never have had on your own, and by seeing how the styles work you'll soon start to learn more about Photoshop and the things you can do with it. Other Photoshop add-ons include templates, custom vector shapes, gradients and patterns.

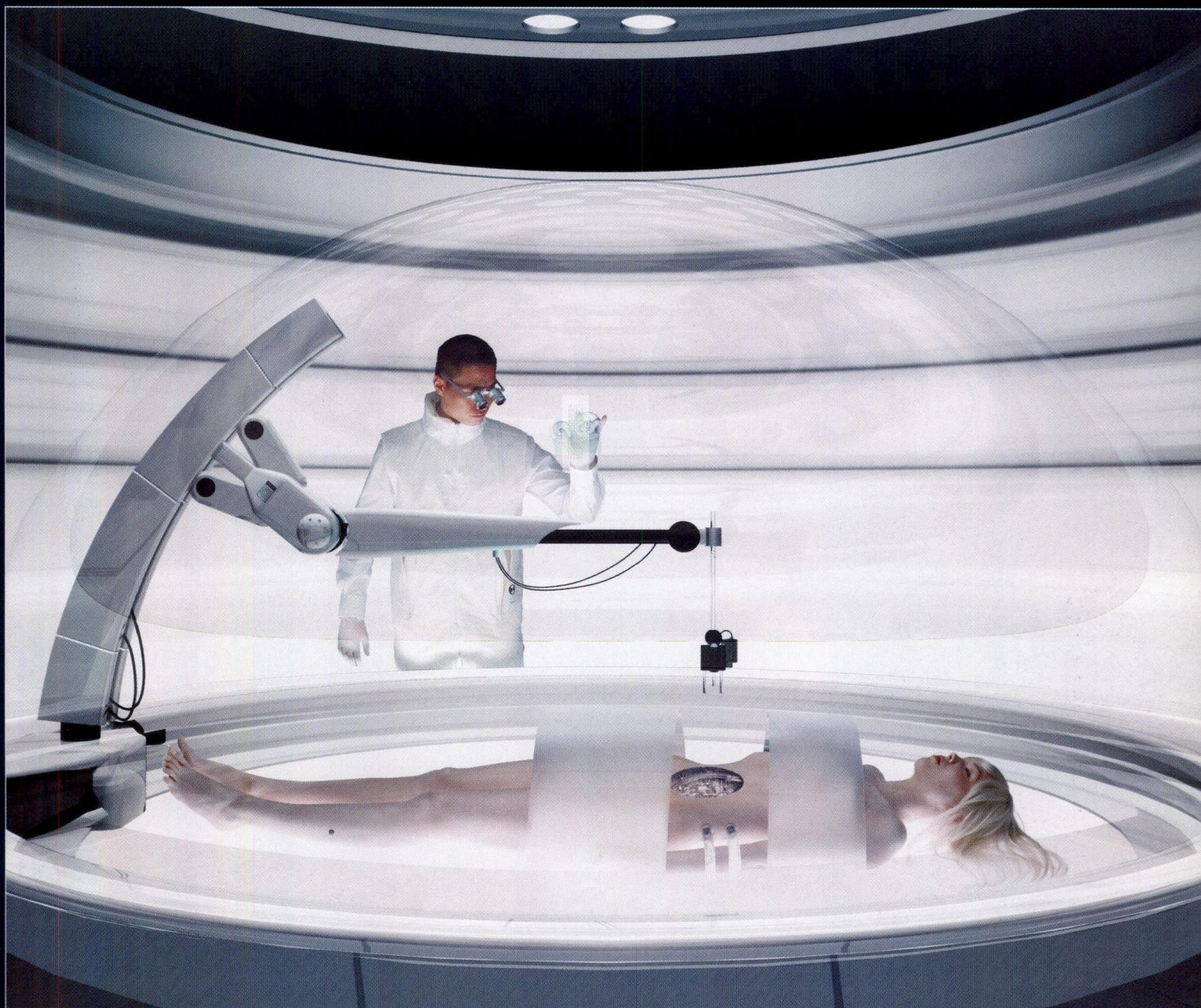
So although plug-ins are the best-known 'extensible' feature in Photoshop, they're by no means the only way of extending its abilities. Actions, Brushes and Styles go even further, increasing not just Photoshop's capabilities, but your own creative horizons. ■



© Sanjay Kothari
"I created this image for Fortune magazine. The story was about the nightmarish experience we have all had when computers, modems and other pieces of technology that we depend on break down, and nothing works"

ALTERED VISIONS

Mixing traditional photography techniques with masterful Photoshop wizardry, Sanjay Kothari has risen to fame with his unique style of digital art. **Andy Stewart** quizzes him on how he uses Adobe's powerful image editor to alter reality



"Newsweek commissioned me to produce this image, which was used to illustrate a story it was running about robotics"

DCA: Tell us about your creative background. Did you study design at school, or did you approach it from another direction?

SK: I have an undergrad in Engineering that I remember nothing of. My real education was two years at the New England School of Photography in Boston. Afterwards, I assisted and freelanced for a short time, and then went to graduate school at Rutgers University in New Jersey. But after the first year I dropped out, because the programme was very political. My education came from going to the library, bookstores, that sort of thing. I'd look at pictures and analyse why they worked, how they worked, what they did to the eye and mind, and try to understand how artists and designers create psychological impact.

DCA: When did you first become interested in photography?

SK: It started with my fascination with birds. Before I got into photography, I got into bird watching, which was when I was about 12. I managed to persuade my parents to get me a 35mm SLR with a telephoto lens after passing my tenth grade exams, which was the thing that really got me started. From that point on, photography itself got interesting. Once I got the camera, I started to get interested in printing and composition.

DCA: What led you to move away from straightforward photography to a more creative, photo-design aesthetic?

SK: I had always been more attracted to photographic work that had been manipulated. Work by photographers like Duane Michaels and David Hockney tended to affect me more than straight photography. I liked the idea of making photography

Artist profile

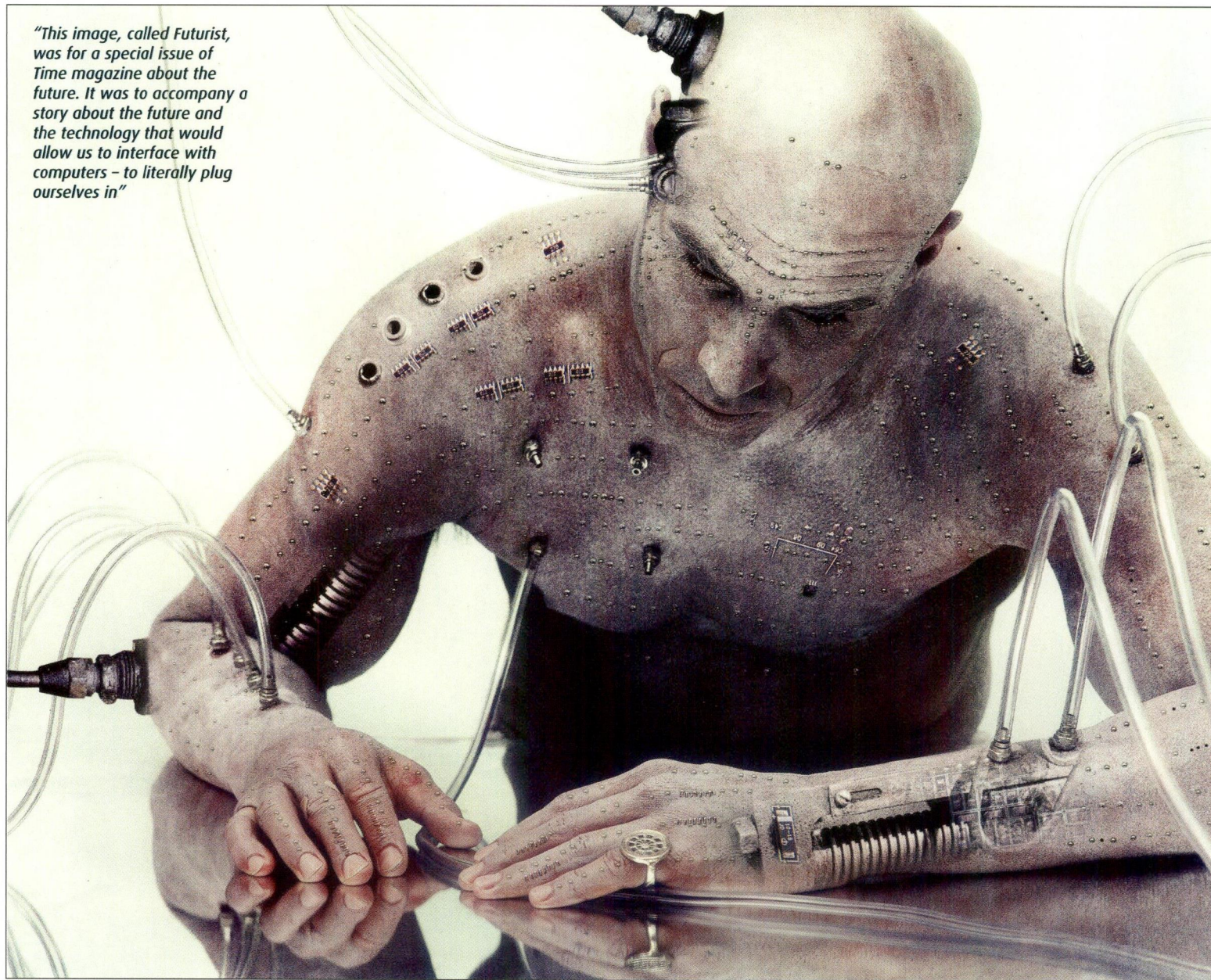
SANJAY KOTHARI



New York-based photographer and photo designer Sanjay Kothari is renowned across the world for his unique style of artwork. Mixing creative photography with a generous dose of Photoshop expertise, Sanjay produces mind-bending and inspirational digital

images that turn the traditional photographic art on its head. With such high-profile clients as *Newsweek*, *Time*, *GQ* and Samsung, Sanjay's innovative and captivating work is widely used for both advertising and editorial illustrations. For more information, head over to Sanjay's Web site at www.sanjaykothari.com to view his online portfolio.

"This image, called Futurist, was for a special issue of Time magazine about the future. It was to accompany a story about the future and the technology that would allow us to interface with computers – to literally plug ourselves in"



do what it doesn't normally do, like twisting an image into the way one wants it. I find the act of just taking a picture a little too passive. When I was at photography school, I did some work with colour printing. I had a large stack of prints left over from class that I wasn't quite ready to throw away, so I got restless and started to cut them up, which was what led me on to photomontage.

DCA: Was photomontage a common practice among creative photographers at that time?

SK: At that time, around 1985, there were a handful of people working with photomontage, but I come from a generation of photography that totally discouraged photographic manipulation. Photoshop arrived in late 1989, and I began using it in 1993. Few people have stopped to think about how the market has changed. The core of Photoshop is photomontage and tools for transforming colour. The market has broadened

tremendously, and the prejudice that was earlier directed by the artistic establishment towards photographic manipulation has shifted, with a prejudice towards digital manipulation. Now analogue manipulation is cool. Contrary to the way it should be, the most innovation in the medium is coming from commercial work, while fine-art photographers are still struggling to understand layers and channels.

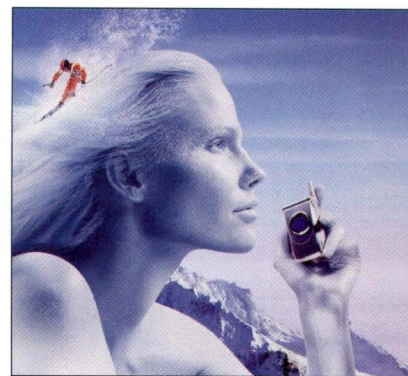
DCA: What happened when Photoshop came along? Did it change the way you worked?

SK: Yes, it changed it quite dramatically. Cut and paste is a medium that involves a certain act of violence (the cut), and it always showed up in the work as a kind of hard-edged surface. In the computer, cut and paste does not have that aspect, because the moment you can feather things it opens up a whole different kind of aesthetic. It allows a much broader range of control.

DCA: Has the development of Photoshop helped to expand photographers' creative potential?

SK: With photography, we depend on physical reality, and so the possibilities are always constrained by what's possible in reality. For example, traditionally if you wanted to take a picture of a chair, there needs to be a chair to photograph. However, with Photoshop, you could photograph wood and make a chair. You still need to photograph real wood, but it's now possible to take that wood and use it like bricks, and build things with it. Because of this, photography has become a much more powerful artistic medium than it used to be. Photographers are still dependent on reality, but no longer on the laws of nature, such as optics, physics and gravity.

DCA: You were one of the lucky few who got the chance to work as a Photoshop alpha-tester. Can you tell us a bit about that?



"This is an image I made for Samsung, which was used as part of its Winter Olympics campaign"

"This image was commissioned by Worth magazine, to illustrate a story about the future prospects and developments of technology stocks"

SK: It was very informal. I had been in touch with people at Adobe when I was in my first few years of using Photoshop, and that same year they had commissioned me to produce some artwork for the Photoshop 3.0 box. So I was given a very early version of the program, which had layers, but it didn't have the Layer Mask. So you basically had to use the Eraser to go between the layers, and the problem was that it just went one way. You could erase, but you couldn't un-erase. It was a pretty obvious omission, so I suggested they include a way of going both ways. It was a bit of an argument to persuade them, because they just weren't getting it, but it eventually went through and ended up as the Layer Mask.

DCA: Do you have any favourite Photoshop tools or plug-ins that you regularly use in your work?

SK: I don't really use any special tools or plug-ins, other than the ones Photoshop offers. The camera Raw plug-

in that comes as part of Photoshop CS is great, and the Liquify tool is pretty amazing for fixing things.

DCA: What hardware do you use to create your artwork?

SK: Besides using a Mac, I have a Canon 1DS which has opened up new possibilities. The image quality is stunning. It's just so much better than using film, because you don't have to wait for the images. It opens up a lot of creative possibilities and makes it much easier to experiment visually.

DCA: Where do you find your creative inspiration?

SK: Everywhere. Whatever's on the street or what you see in the movies, or whatever's just around. It's all in my subconscious. However, I think there are some very interesting things being done in graphic and industrial design at the moment that I find quite inspiring.

DCA: How would you describe your artistic style?

SK: I want to uncover as much of photography's potential as I can. My artistic interest is in the photographic medium. Not in the narrow-minded factual approach, but in the medium that embraces all its possibilities, both analogue and digital, and acknowledges its relationship to other media such as painting, drawing and film. I don't have any conscious interest in cultivating a style, and I approach different subject matter with a different sensibility. I have many artistic and aesthetic interests. For example, I find science fiction and the aesthetic that surrounds it quite fascinating. I'm also very drawn towards the use of texture. I like the quality that an etching has and I like to bring that aspect into my work. So really it's a whole mix of things that interest me, but primarily I'm interested in uncovering photography's potential for creating powerful, impactful imagery.

FixerLabs pioneering plug-ins for professionals



FocusFixer the ultimate sharpening tool - finalist in the 2004 MacWorld Awards.



Discover how the FixerBundle plug-ins (FocusFixer, NoiseFixer, ShadowFixer and TrueBlur) can bring your creative vision to reality.

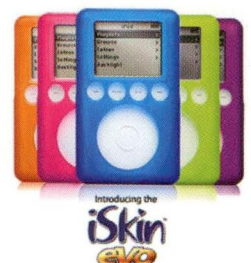
Download your FREE trial copies today from www.fixerlabs.com

Coming soon SizeFixer!

Website - www.FixerLabs.com
E-mail - info@fixerlabs.com



www.ipodessentials.co.uk



www.ipodessentials.co.uk

Digital Creative Arts special edition

WORKSHOP CONTENTS

PHOTOSHOP BASICS

- 26 The Photoshop CS Interface explained
- 28 Explore Photoshop's tools and palettes
- 30 A complete guide to working with layers
- 34 Create a photostitch with photomerge
- 38 Using Photoshop's new file browser

DIGITAL ILLUSTRATION WORKSHOPS

- 40 Introducing layer comps
- 44 Create striking imagery
- 52 Compositing images

DIGITAL ART WORKSHOP

- 64 Create comic book art

3D WORKSHOP

- 72 Retouch a 3D illustration

WEB DESIGN WORKSHOPS

- 78 Optimise graphics in ImageReady CS
- 84 Create pixel style icons

Look for the logo

Learn new techniques with our support files

Look out for this logo as you work through the projects in the magazine. When you see this you can be sure that all the files you need to complete the tutorial are on your free CD-ROM



ON THE CD

Adobe Photoshop Image used:
Sample images/
Contax N Digital/
ContaxND_04.JPG

Photoshop workshops

Our workshops explained

The aim of our step-by-step workshops is to furnish you with the skills and techniques you need to develop your creativity in Photoshop. Each tutorial is written by a Photoshop expert and screenshots are provided at every stage

Start to finish

All of our projects have a logical start and end point. We'll show you how to achieve a certain effect or technique without skipping steps or assuming prior knowledge

Your experts

We go out of our way to find experts who know the programs they are writing about inside out. This way you know that the information we provide can be trusted and is always accurate



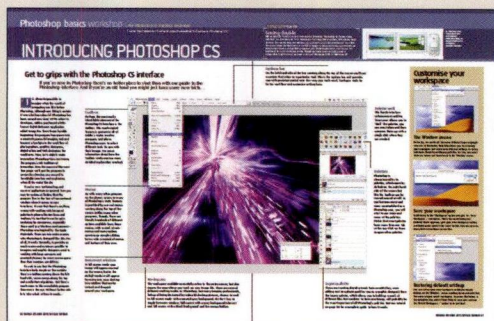
Project files

Support files for every project are included on the *Digital Creative Arts Special Edition* CD. Below the logo is a list of every file needed

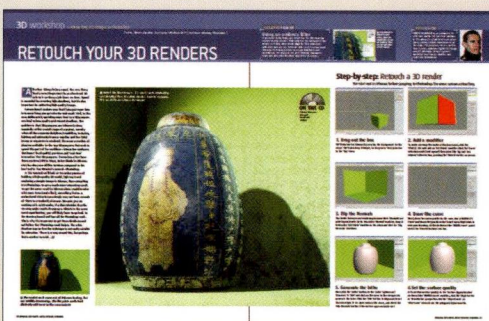
Simple guides

Key techniques are highlighted with annotated diagrams so you can clearly see how the techniques we're covering work

Hands-on advice at a glance...



■ Just starting out? Then allow us to show you around the Photoshop CS interface as we present four pages of interface guides. We'll explain what all the key palettes do and what every tool in the toolbox is for on pages 26-29



■ Photoshop is one of the most essential tools in any 3D designer's arsenal. In a six-page workshop starting on page 72 top 3D artist Simon Danaher reveals how it can be used to retouch and finesse any 3D illustration



■ Few people realise that Photoshop also includes a standalone program for Web designers. We explore ImageReady CS on page 78 and show you how this useful program will make your Web graphics load faster

INTRODUCING PHOTOSHOP CS

Get to grips with the Photoshop CS interface

If you're new to Photoshop there's no better place to start than with our guide to the Photoshop interface. And if you're an old hand you might just learn some new tricks...

It's almost impossible to imagine what the world of computing was like before Photoshop, although one thing is certain: it was a lot less colourful. Photoshop has been around now since 1990, when its developer, Adobe, purchased a little-known digital darkroom application called Image Pro. Since those humble beginnings the program has grown into a massively powerful imaging tool and become a lynchpin in the workflow of photographers, graphics designers, digital artists and Web designers the world over. Now, in its eighth major incarnation, Photoshop CS is continuing the program's rich tradition of innovation. Over the course of the next four pages we'll put the program in context by showing you around its formidable interface and explaining what all the major bits do.

If you're new to Photoshop and creative applications in general then you may be curious at finding that the program flies in the face of conventional wisdom when it comes to user interfaces. It's not that there's anything wrong with working with heaps of palettes in place of button bars and toolbars, it's just that it can be quite confusing for newcomers, especially those used to a Windows environment – Photoshop was inspired by the Apple Macintosh. There are two main reasons why Photoshop is designed like this. First of all, it works. Secondly, it provides as much screen real estate as possible to imageers and graphic designers used to working with large canvases and constantly hungry for more screen space than their monitors can deliver.

It's safe to say that the Photoshop interface looks simple on the outside: there's a toolbox running down the left hand side, some menus along the top and a collection of palettes. But there's much more to this remarkable program than meets the eye. Without further ado let's take a look at how it works...

Toolbox

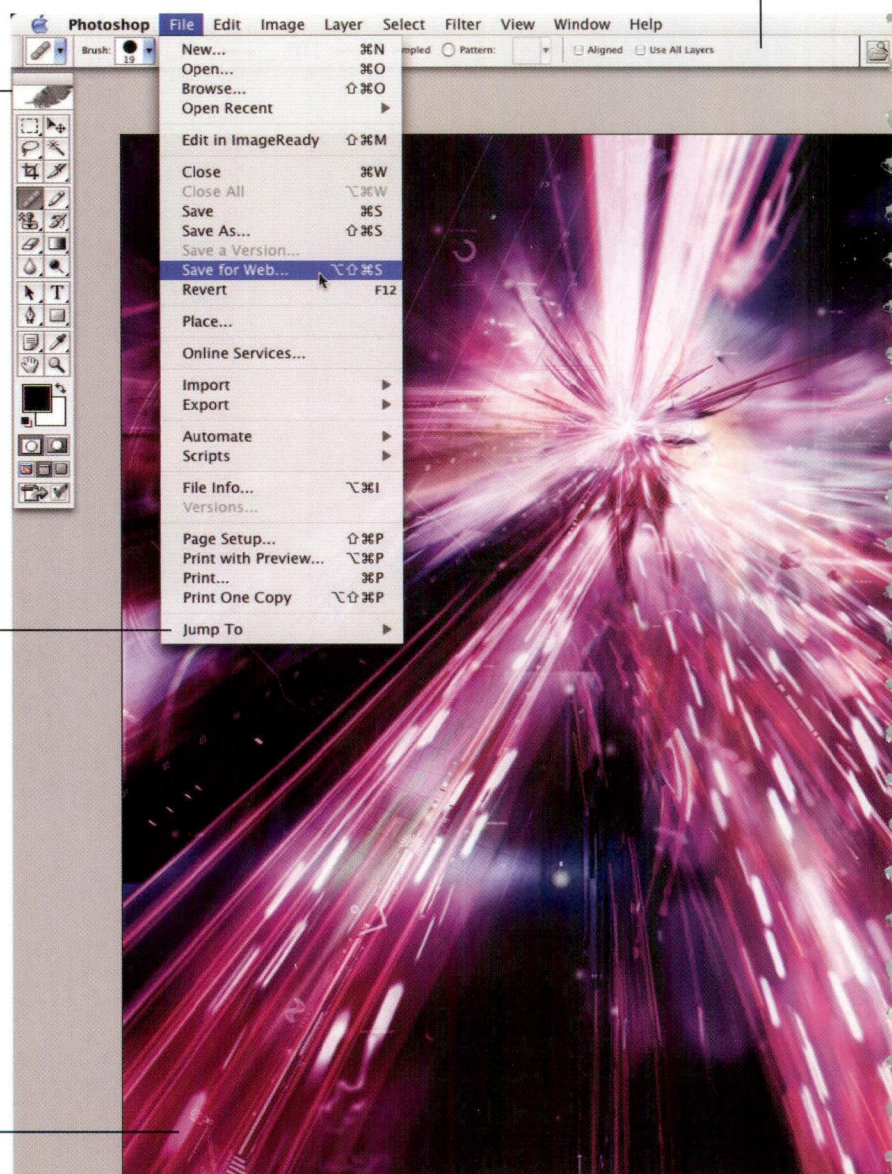
Perhaps the most easily identifiable element of the Photoshop CS interface is the toolbox. This much-copied feature is present in all of Adobe's major creative programs and allows Photoshop users to select different tools for use with their images. For more information about how the Toolbox works see our more detailed explanation overleaf.

Menus

As with every other program on the planet, access to many of Photoshop's main features is provided by a set of menus running along the top of the screen. Unlike many other programs, though, there are literally hundreds of different options available from these menus, with a stack of sub-menus and many options opening up complex dialog boxes with a myriad of menus and buttons of their own.

Document window

In full screen mode your image will appear centred on the screen, but in the default mode it will appear hovering over your desktop in a window that can be resized and dragged around your workspace.



Workspace

The workspace available essentially refers to the entire screen, but also means the area where you work on your image file. There are several different working modes in Photoshop, but many imaging professionals, fed up of being distracted by colourful desktop pictures, choose to work in full screen mode with a neutral grey background. Hit the F key to toggle between window, full screen with a grey background (shown) and full screen with a black background and the menus hidden.

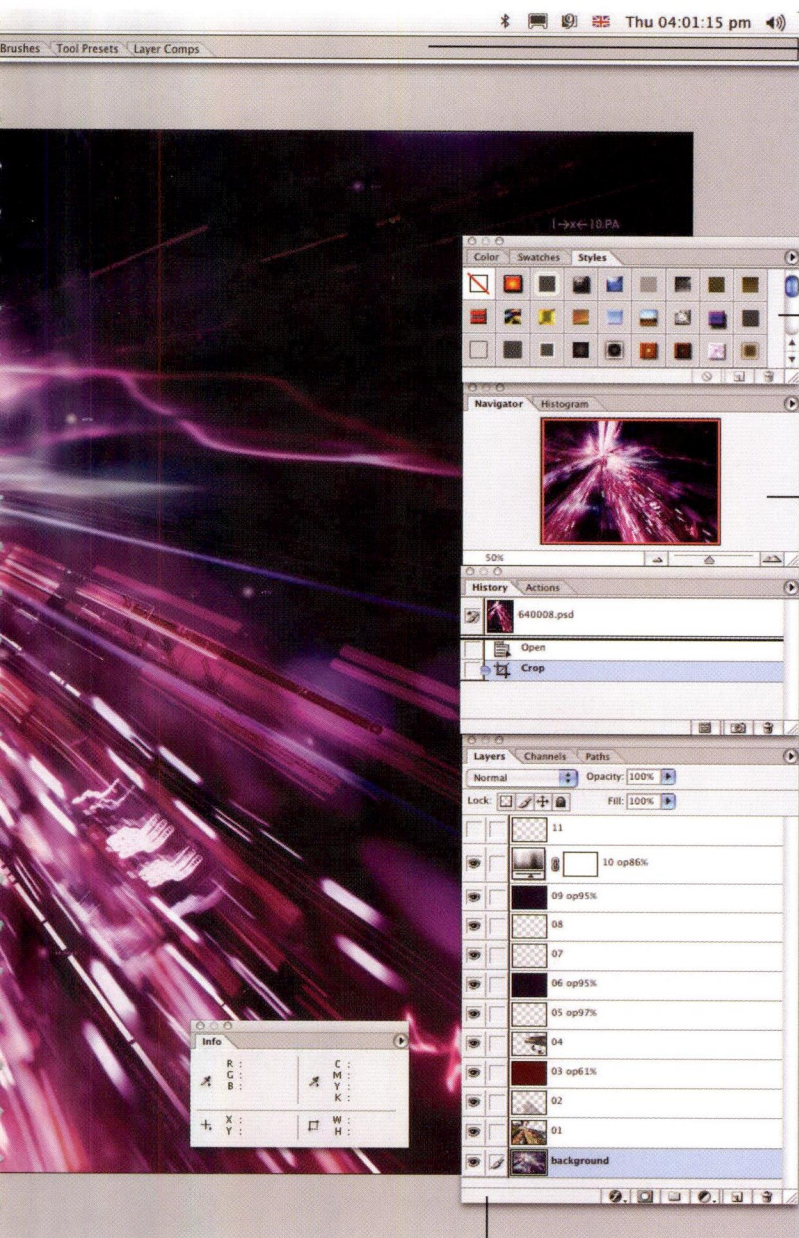
Seeing double

We've already touched on just how screen intensive Photoshop is. Power users alleviate the demands on their workspace by using two monitors. This allows them to have the canvas they are working on one screen and the palettes on the other. The great news for Mac users is that OS X supports video mirroring as standard, as long as you have a compatible graphics card. PowerBooks have a button on the keyboard for enter mirroring mode. Windows users need not only need a compatible graphics card, but also a copy of Windows 2000 or Windows XP.



Options bar

On the left-hand side of the bar running along the top of the screen you'll see a section that refers to a particular tool. This is the options bar and provides you with precision control over the way your tools work. Configure tools for better workflow and customise setting here.



Palette well

This handy interface enhancement and big time-saver allows you to 'dock' the palettes you use most often and then summon them up with a single click when they are needed.

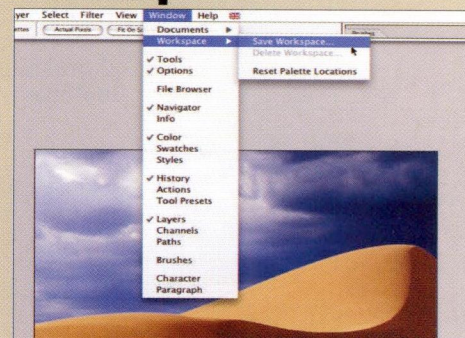
Palettes

Photoshop is characterised by its palettes, which open by default on the right hand side of the screen but, like the Toolbox can be moved around at will. As you become more and more accomplished as a Photoshop user, you will start to use more and more of the palettes. Notice that most palettes have more than one tab at the top. Click on these to open other palettes.

Layers palette

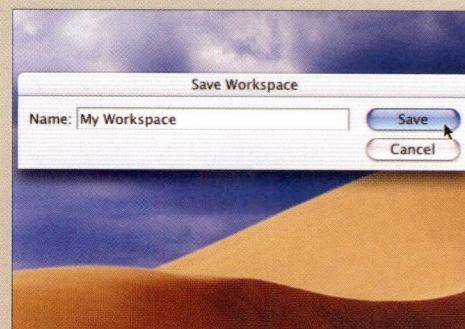
If you are creating digital artwork from scratch (hey, even adding text to a photo qualifies you as a graphic designer) then the Layers palette, which allows you to build up a stack of different files that combine to form one image, will probably be the most important of all Photoshop's palettes. See our tutorial on page 30 for a complete guide to how it works.

Customise your workspace



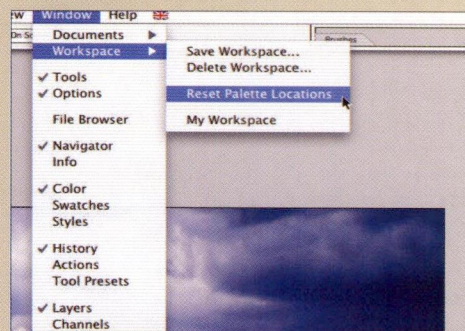
The Window menu

Reflecting the needs of the many different types of people who use it, Photoshop helpfully allows you to customise your workspace and even save different settings for future reference. Begin by setting up palettes the way you want them on screen and then head to the 'Window' menu.



Save your workspace

Scroll down to the 'Workspace' option and pick the 'Save Workspace...' command. When the small dialog box pictured above appears, give your new workspace setting a suitable name and hit the 'Save' button. You can save as many different settings as you like.



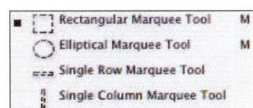
Restoring default settings

You can call up your new workspace setting by simply clicking on the 'Window' menu, scrolling down and selecting the name of your saved workspace. To return Photoshop to the default setting select 'Reset Palette Locations' and use the 'Delete Workspace...' option to do just that.

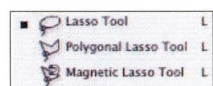
INTRODUCING PHOTOSHOP CS

Photoshop CS's tools and palettes explained

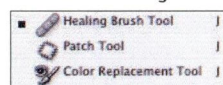
Additional Marquee tools



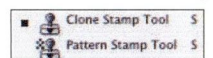
Additional Lasso tools



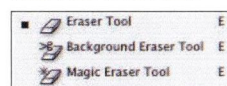
Additional Healing Brush tools



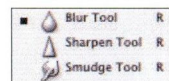
Additional Clone Stamp tools



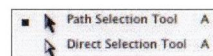
Additional Eraser tools



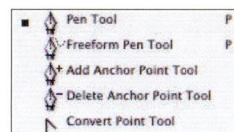
Additional Blur tools



Additional Path tools



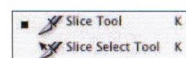
Additional Pen tools



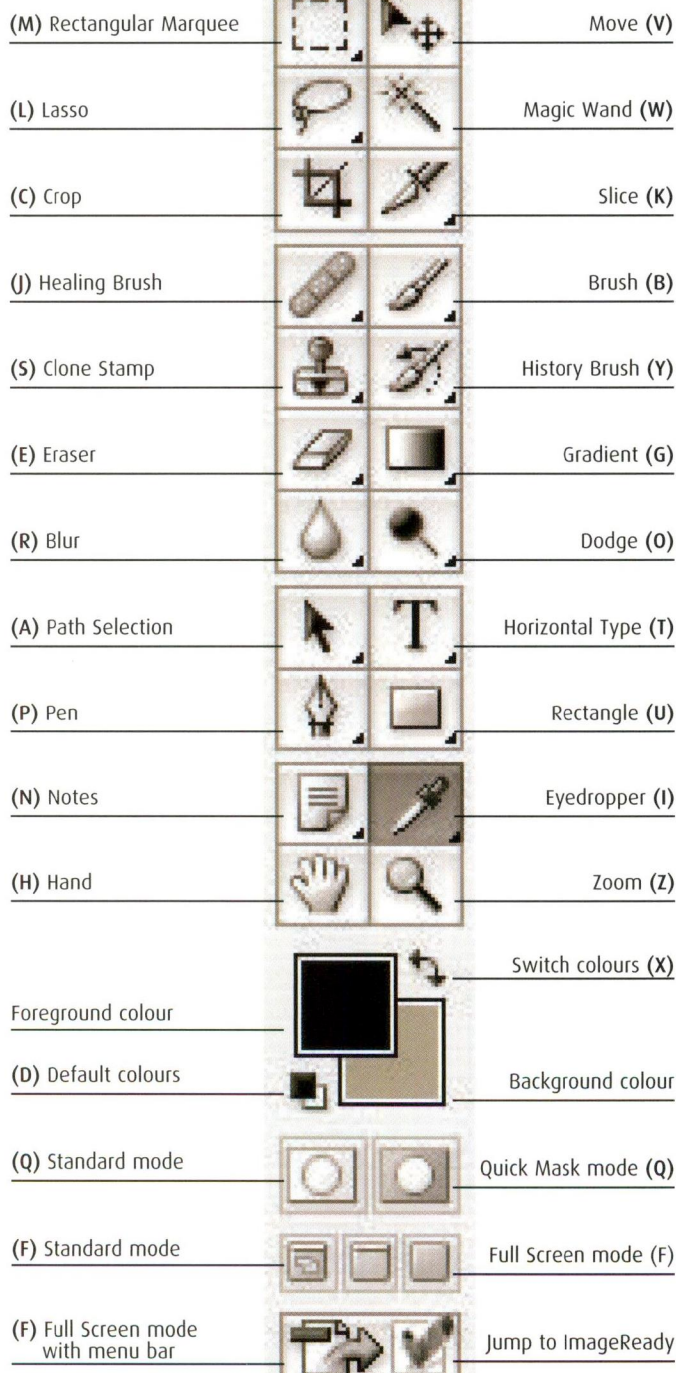
Additional Notes tools



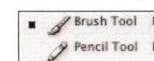
Additional Slice tools



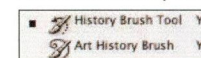
Photoshop's Toolbox



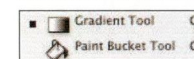
Additional Brush tools



Additional History Brush tools



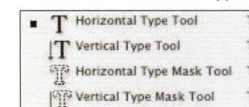
Additional Gradient tools



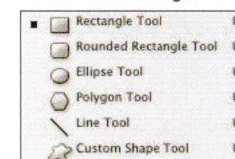
Additional Dodge tools



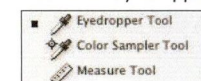
Additional Horizontal Type tools



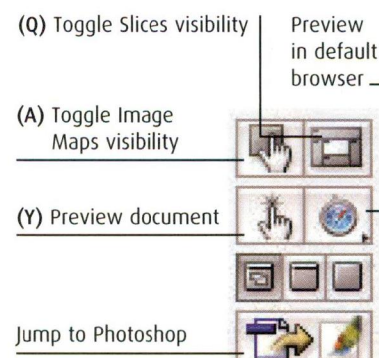
Additional Rectangle tools



Additional Eyedropper tools



ImageReady's extra tools



CREATIVEPRIMER

Toolbox tips

Below are some useful tips and tricks for finding your way around the Photoshop Toolbox:

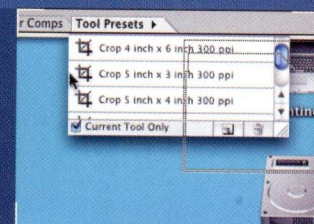
1. Press the shortcut key mentioned in the brackets on page 28 to select a tool
2. Using the mouse, select a tool with a single click. Hold down the 'Control' key and click to reveal hidden tools

3. Click on a tool and then hit the 'Return' key to highlight the Options bar
4. Hold down the 'Shift' key to constrain dragging or drawing to straight lines or multiples of 45°

CREATIVEPRIMER

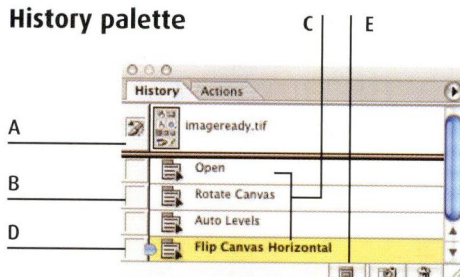
The Palette Well

Look at the Options bar and you'll see several 'docked' palettes. This part of the interface is known as the Palette Well and allows you to dock palettes you use regularly for easy access. Click on the tabs to pull a palette out, and drag a palette in by clicking on its tab and then dropping it over the Palette Well.



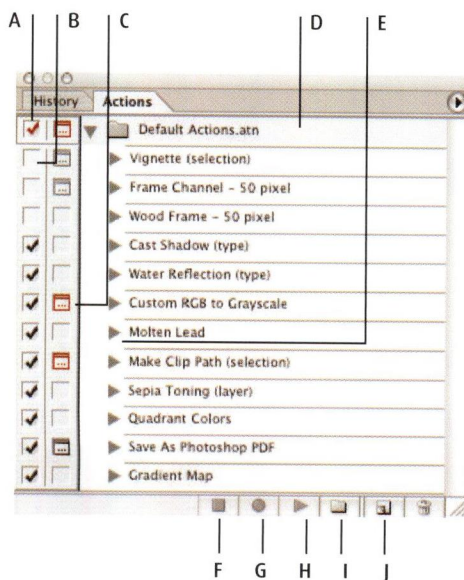
The Palette Well is very convenient and gives you ready access to the palettes you use most frequently

History palette

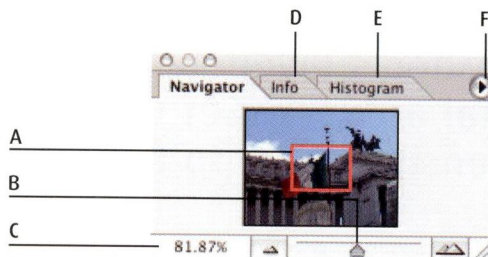


- A Click here to set a source for the History Brush
- B This is the snapshot of the current saved state of your document
- C These states show the most recent changes made to your document
- D Drag the slider to move the selection between states
- E Click here to create a new document from the existing state of your document

Actions palette



- A Click here to turn a set of Actions on or off
- B And click here to turn an Action on or off
- C This button turns a break-out point on or off
- D Double-click the highlighted Action to display an Options dialog box
- E A click here will reveal or hide the contents of a set of Actions
- F This button stops an Action from playing
- G Click here to record a new Action
- H And click here to play one back
- I Hit the Folder icon to create a new set of Actions
- J Click here to create a new Action and start recording it

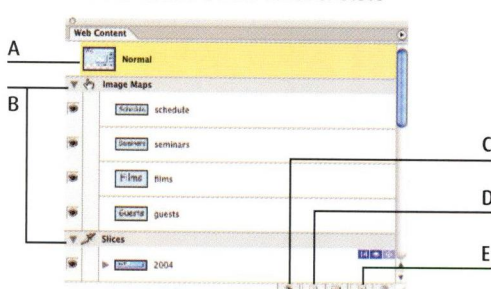


Navigator palette

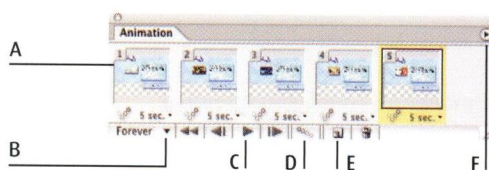
- A The red rectangle shows the area of the image displayed on-screen
- B Pull this lever to zoom in and out of your image
- C The zoom percentage is displayed here
- D Click this tab to switch to the Image Information view
- E The Histogram can also be accessed from this palette
- F Click this black triangle to see more palette options

ImageReady Web Content palette

- A New to ImageReady CS, this palette displays Web-specific content
- B The palette is divided into sections for image maps and slices
- C Click here to create a layer-based rollover
- D This button lets you group slices into a table
- E Click here to create a new rollover state

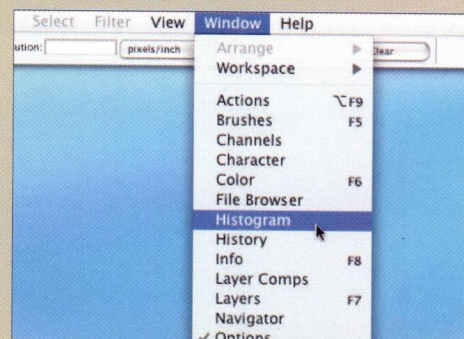


ImageReady Animation palette



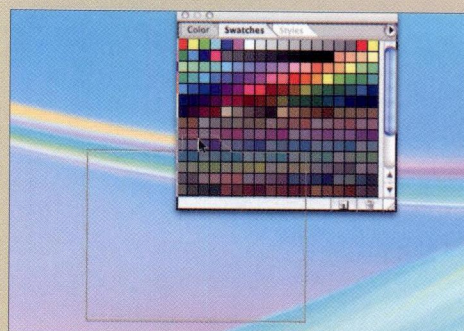
- A The frames of an animated GIF graphic will appear here
- B Use this downwards-pointing triangle to set the length of the loop
- C These directional controls allow you to play an animation and navigate to particular frames
- D Click here to tween animation frames
- E And click here to duplicate a frame
- F As ever, more options are available by clicking on this triangle

More custom interface tricks



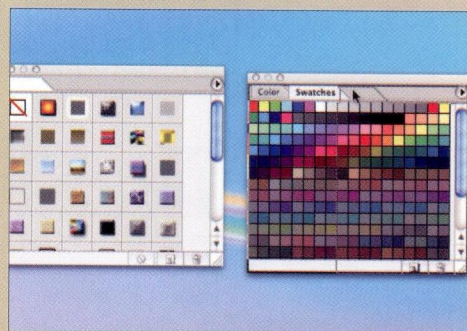
1. Opening and closing

Working with palettes is straightforward, but Adobe has gone out of its way to make the process heavily customisable. Starting with the basics, you can summon up and switch off palettes by clicking on the 'Window' menu. Ticks indicate a palette is active



2. Ungrouping palettes

You'll notice that related palettes are grouped together. Paths with Layers, Color with Swatches and so forth. All you have to do to remove a palette from its group is click on its tab, as shown above, and then drag it out. Let go of the mouse - and there it is.



3. Putting them back again

So what if you want to return your palette to the group it was previously with? Well, that's simple too. Just click on the palette you want to regroup's tab, and then drag it into the row of tabs at the top of the host palette. That's all there is to it!

A COMPLETE GUIDE TO LAYERS

Learning how to use Photoshop's layers feature is essential if you want to start creating striking digital artwork. Get up to speed with how layers work here in our comprehensive guide to how they work



Background layer

We use this flame image as the background layer. The background layer is always the bottom-most layer, so everything else goes above it

Layer mask

A layer mask is used to control the transparency of the tiger layer, so that the background flames can show through

Image layers

The imported tiger image has its own layer. Altering the blending mode of this layer adds a slight neon effect to the tiger's face

Text layer

Text or vector graphics have to have their own separate layers. Layer Styles allow you to add drop shadows and other effects

Adjustment layer

Adjustment layers are like photographic filters. They alter the appearance of any image layers below them without actually altering the data in those image layers

Most image-editing programs have some sort of option for working with layers, yet many users never go anywhere near them. Beginners often steer clear of layers, thinking they're a complicated 'advanced' feature. It's true that layers are an invaluable aid for complex work such as compositing, but they can also be extremely useful for quite basic tasks such as adding text to an image.

It may help to think of layers as sheets of transparent acetate or tracing paper. Each layer can have an image 'painted' onto it, and that image remains entirely separate from the images stored on other layers. You could build up a scene by having the background image stored on one layer, while the foreground is on another. Additional elements such as text can also be placed

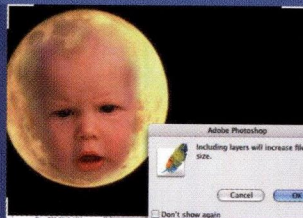
on separate layers. You can then edit individual layers without affecting the contents of any others.

Photoshop has some of the most powerful and versatile options for working with layers. As well as storing image data, the program also enables you to create special layers to control tonal adjustments such as brightness and contrast, along with other effects.

We've used Photoshop CS in our examples here, but the main difference between the Layers palette in CS and earlier versions is the addition of 'Layer Comps' – which are dealt with elsewhere in this issue. Most of the layer options shown here will therefore be available in older versions of Photoshop, as well as in the cut-down Photoshop Elements. ■

Flattening layers

Layers are very useful for working on files that contain multiple elements. However, each layer that you add to a document increases its file size. The image shown here was 1.2Mb when saved as a .psd file containing layers. The 'Flatten Image' command merged everything down into a single bitmap image of 300Kb. Finally, conversion into JPEG format took it down to just 100Kb. Be aware though, that once flattened, the separate images stored on those layers are gone, so always make backups of your files before flattening them down.



Photoshop will warn you about the size of layered files

CLIFF JOSEPH is a former editor of MacUser magazine, and now works as a freelance journalist for a variety of magazines and newspapers. He spends a worrying amount of time playing with Apple products and saying "Now what happens if you press this..."

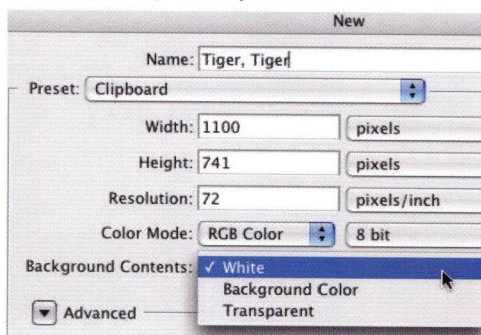
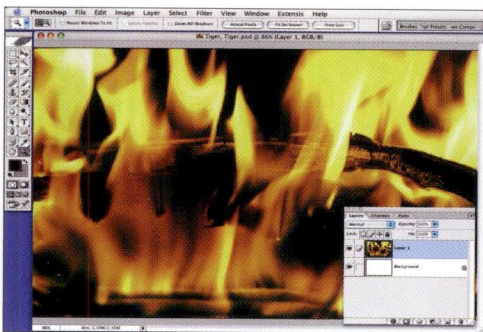
Step-by-step: making the most of layers

Create a dramatic new image with a bit of ingenuity and layer know-how



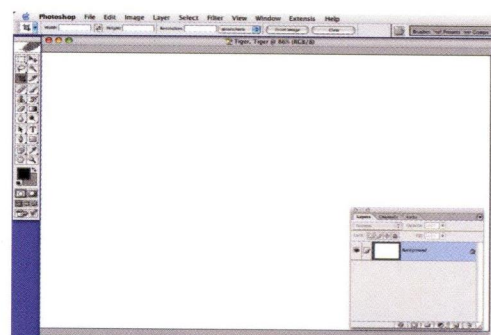
1: Combining images

Here are two images that we're going to combine using Photoshop's Layer tools. As you can see, the two images are different shapes and sizes, so we're going to create a new document into which we'll copy both images, leaving the originals untouched.



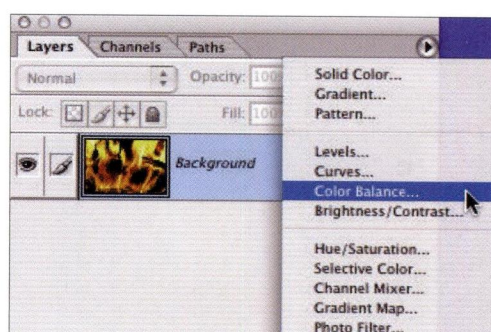
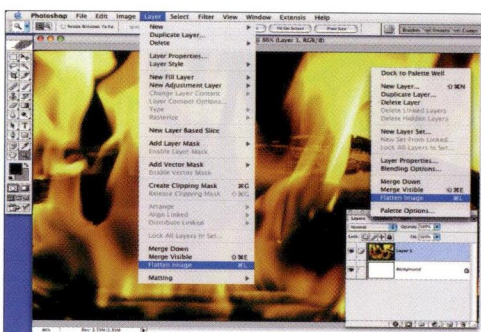
2: Choose your background

All images in Photoshop consist of at least one layer. When you create a new image you can specify a transparent or a coloured background (which can be either white or a coloured background colour specified in the main 'Tool' palette). Most images have a standard white background.



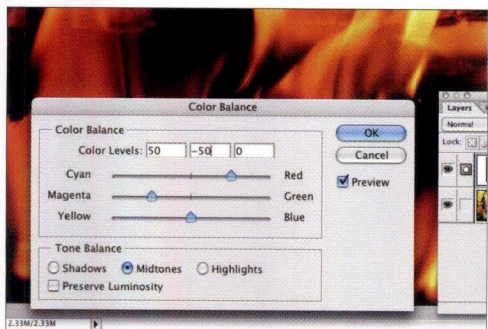
3: Empty background layer

Selecting a white or coloured background will create a document with an empty background layer. The background layer is fixed at the bottom of the layer stack. Its opacity and fill are also locked - indicated by the padlock symbol to the right of the layer's name.



4: Check out the layers

You can paint directly onto the background layer, but anything that you copy into the document gets added as a new layer above the background. That leaves us with an empty background layer that we don't really need. It's time to check out the 'Layers' menus.



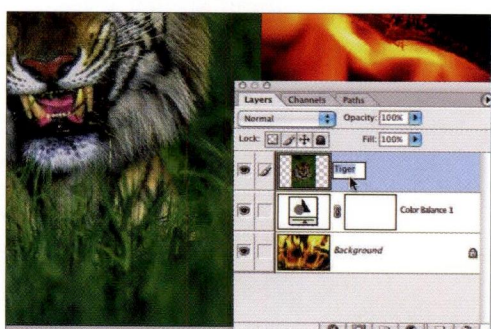
5: Two menus

One slightly confusing aspect of Photoshop's Layer tools is that they're spread across two separate menus. Just to tidy things up a little, we'll use the 'Flatten Image' command, which is available in both these menus. This pushes any upper layers down into the bottom background layer.



6: Add an adjustment layer

The background layer now contains the flame image. However, the flames are a bit pallid, so our next step is to add a new type of layer, called an 'adjustment' layer. These provide a number of tonal controls similar to those found in the main 'Image/Adjustment' sub-menu.



7: Balancing the colours

Selecting the 'Color Balance' option adds a new 'Color Balance' layer to the list in the 'Layers' palette. Your colour changes are stored in this new layer, which acts as a kind of lens filter, while the background layer beneath it remains unchanged.

8: Save regularly

Save your work regularly. Some graphics file formats can't handle layers, but the 'Save As' dialog box will display a warning symbol if you choose the wrong format. For now, it's best to use Photoshop's .psd file format, or a format such as .tif, which supports layers.

9: A tiger in the tank

Now copy the tiger image and paste it into our layered document. As before, this element is added as a new layer that sits on top of the existing layers. For clarity, we'll rename this new layer. Simply double-click on the layer name to edit it.

A COMPLETE GUIDE TO LAYERS

Using layers for photo-retouching

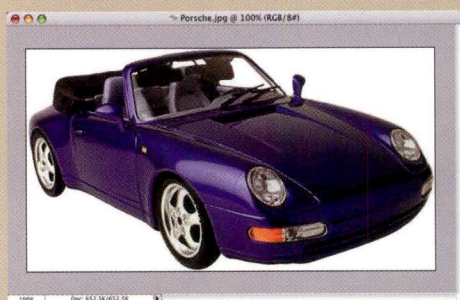
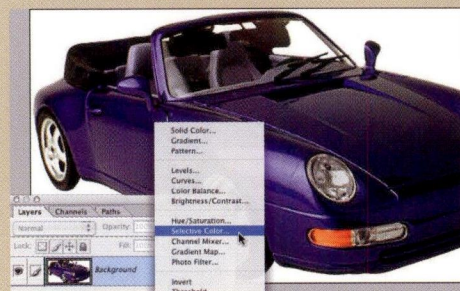


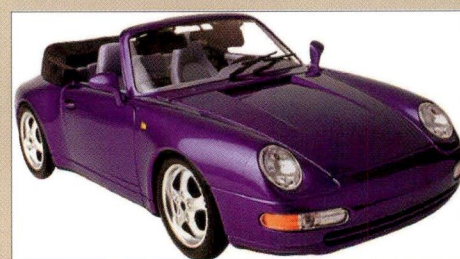
Photo adjustment

When you use Photoshop's normal Adjustment tools ('Image' menu, 'Adjustments' sub-menu) any changes you make are applied directly to the pixels within the image. Once you save the image, there's no going back if you change your mind. Using adjustment layers gives you a safety net.



Adjustment layers

The car is stored in its own image layer. You can now add a separate adjustment layer by clicking the split-circle symbol at the bottom of the 'Layers' palette. Any changes you make are stored in the adjustment layer, leaving the original image layer untouched.



Purple patch

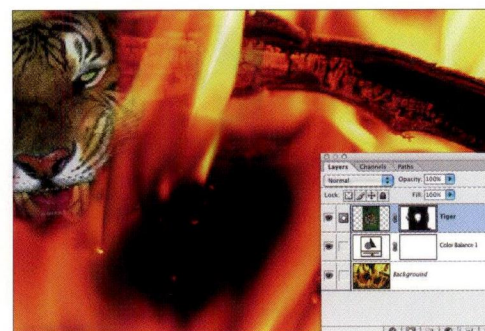
Keeping the image and adjustment layers completely separate means you can experiment freely with the settings in the adjustment layer without ever affecting the underlying image layer. You can even swap in a new image layer, applying the same colour adjustments to a different image.

Continued...



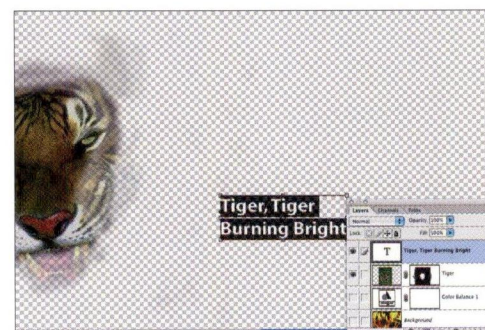
10: Add a layer mask

We'll now add a 'layer mask' by pressing the 'Mask' button at the bottom of the palette. This adds a blank mask thumbnail to the right of the thumbnail of the tiger. Like a conventional mask, the layer mask allows you to show or hide sections of an image.



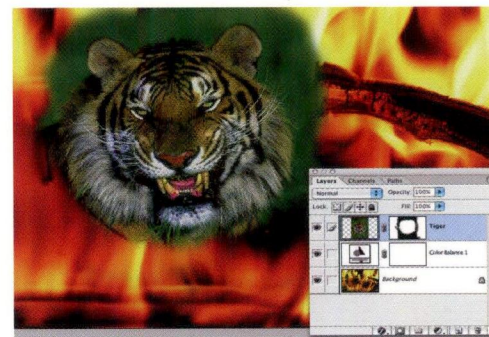
14: Experiment with colour

You'll need to experiment with the brush colour to achieve the right results. Varying the brush size will also allow you to pick out finer details. Don't worry if anything goes wrong – simply use 'Undo' or paint over the mask again to restore lost details.



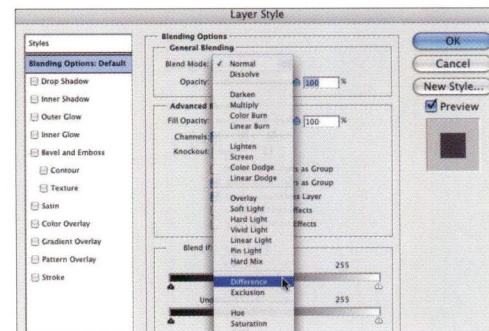
18: Now you see it...

Our image is getting crowded and we can hardly see the text we've just added. You can get a clearer view by hiding some of the other layers. Click on the eye symbol to the left of the layer thumbnails. Clicking again makes the layers visible once more.



11: Behind the mask

The mask is a greyscale image that allows you to control what is shown or hidden. Painting with a dark brush obscures the top (tiger) layer, revealing the (fire) layer below. Select the 'Brush' tool and click on the right-hand mask thumbnail to make sure it's selected.



15: Your blending options

Each layer has its own opacity and fill controls, situated at the top of the 'Layers' palette. However, double-clicking on the layer thumbnail opens up a dialog box that provides a wide range of additional blending options. We'll select the 'Difference' blend here.

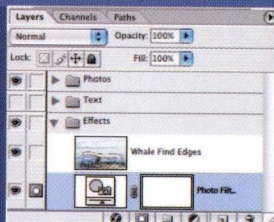


19: Take control

You can format your text using any of Photoshop's standard text tools, but for greater creative control try using the 'Layer Style' options found in the main 'Layer' menu. You can also use the 'Layer Style' button – the 'f' symbol at the bottom of the 'Layers' palette.

Managing layers

The 'Layers' palette can soon get crowded when you're adding layers to a complex document. Fortunately, Photoshop offers a number of options for managing documents containing many layers. The 'Layer Options' command in the 'Layer' menu lets you colour-code individual layers. You can also create 'layer sets'—groups of layers contained within folders; you could have one folder for text layers and another for layers with photos. These can be named and arranged in the 'Layers' palette, just like individual layers.



Using layer sets makes it easier to manage complex documents

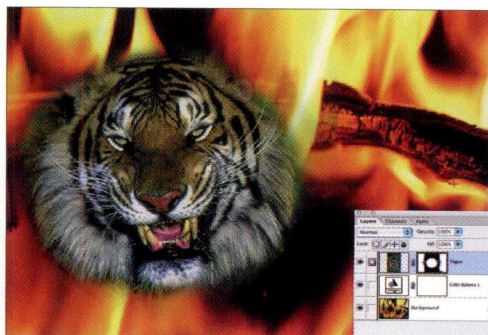
SAYWHAT?

OPACITY

By default, new layers added to an image are 100 per cent opaque so that they obscure any layers below. However, you can adjust the 'Opacity' setting so that lower layers show through.

BLEND MODE

It's also possible to alter the way that pixels in one layer interact (blend) with pixels in lower layers. Different blend modes cause these pixels to interact in different ways, for example by combining colours or altering their brightness or saturation.



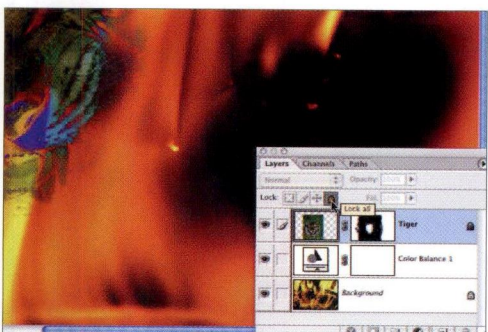
12: Nice kitty

Let's zoom in a bit and work closer on the tiger's face. Using a dark brush pulls the flame background forward, but the transition between the two images is too hard-edged and abrupt. We can achieve a smoother result by varying the colour of the brush.



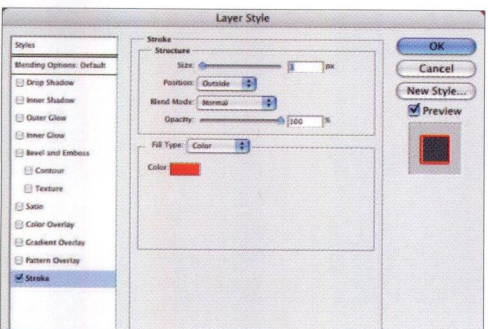
13: Pick your colour

Click the foreground colour well in the main 'Tool' palette to open the 'Color Picker' dialog. Selecting a lighter colour for the brush will allow you to paint on the mask so that a little more of the tiger's face shows through, producing a smoother transition.



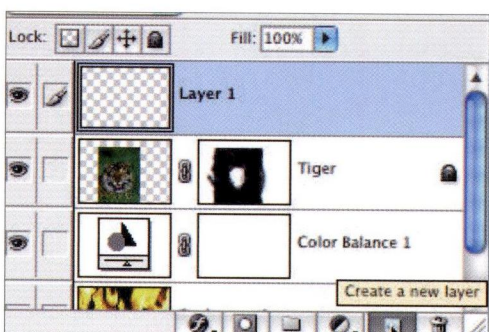
16: Under lock and key

We've changed the blending mode and nudged the tiger's head down a little. We like the image this way, so we'll 'lock' this layer using the Lock options in the 'Layers' palette. You can always unlock it again, should you change your mind later.



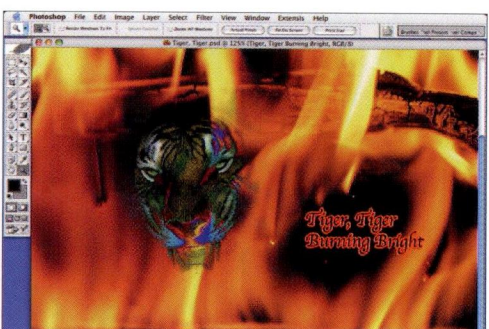
20: Create your style

The 'Layer Style' dialog box provides a wide range of effects such as drop shadows, glows, bevels and strokes. We'll select a stroke to make our text more visible. To find out more about this important set of tools, check out our sidebar on the right, where we take a closer look.



17: Adding text

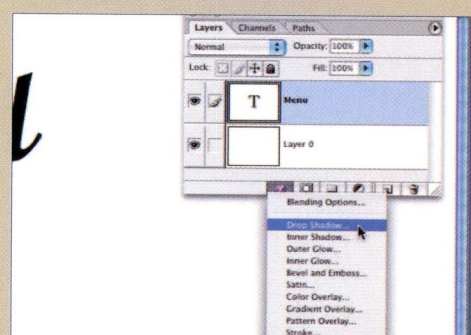
You can use Photoshop's Paint tools to edit any layer that contains bitmap image data, but vector elements such as text have to go on separate layers. We want to add some text now, so click the 'New Layer' button at the bottom of the palette.



21: The final image

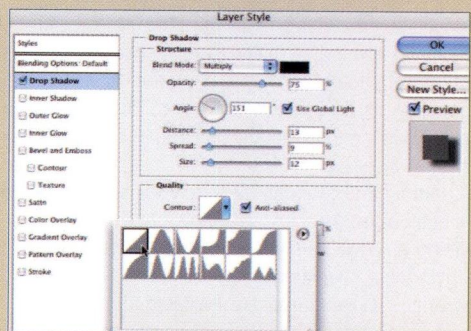
Here's the final image, consisting of three main layers for the text, tiger head and flaming background. Each layer remains a separate entity unless you actually choose to merge them all into a single bitmap image, or export to a format that doesn't support layers.

Using Layer Styles



Do it with style

The concept of styles will probably be familiar to most Photoshop and ImageReady users. 'Layer Styles' allow you to apply effects such as drop shadows, bevels and glows to a layer. You can apply multiple effects and save them all as a single style.



Shadow play

The 'Layer Style' dialog box provides great control over all styles and effects. These effects become part of the image layer to which they are applied. However, you do still have the ability to go back and change the effects if you need to.



Style palette

You can also use Photoshop's existing 'Style' palette to add predefined effects and styles to a layer. Each effect is listed beneath the relevant layer in the 'Layer' palette, and double-clicking will take you back to the 'Layer Style' dialog so you can fine-tune the effect.

CREATE A PERFECT PANORAMA

Turn a series of shots into a stunning panorama with a little bit of help from the new Photomerge tool in Photoshop CS

Although most digital cameras come complete with a good wide-angle lens, it's tricky for photographers to capture the full atmosphere of a scene with one shot alone. But with a little forward planning and the help of some image-editing software, it's possible to combine a series of photos into a panorama by overlapping the shots and adjusting the way they blend together.

The only problem is that as you rotate the camera to snap overlapping shots the exposure settings used for the previous shot change, which of course produces mismatching colour tones and skewed hues. This is certainly a problem in extreme conditions, regardless of whether it's bright or overcast, and can result in images that are, at first glance, not up to the job.

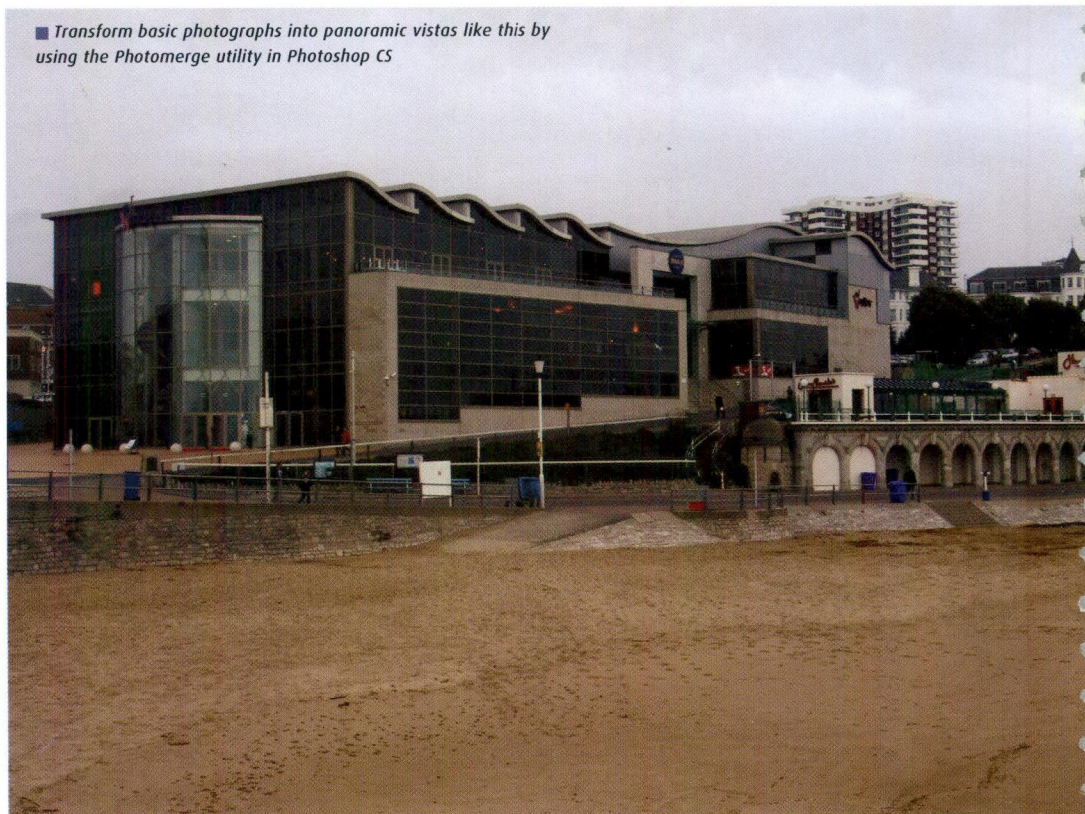
However, help is at hand with Photoshop's menagerie of new stitching and editing tools. Firstly, and perhaps most importantly, the task of joining images together has now been made much easier with the new Photomerge utility. Able to analyse objects in a series of photos, and bend, twist and distort edges so that they match seamlessly together, the Photomerge tool makes creating lengthy panoramas both quick and ridiculously easy.

Unfortunately, though, the eagle-eyed critic will still be able to see the joins, so a little advanced image editing is needed if photos are to blend into each other convincingly. Thankfully, tools such as the 'Healing' brush and 'Clone Stamp' are available to make the job much less stressful.

But let's not stop there. While we're at it, we can also improve the colour of the images by carefully using the 'Brush' tool to paint in new colours that can really lift the panorama off the page. Gone are the dull tones of an overcast day, replaced with more vibrant blue skies and sandy-coloured sand.

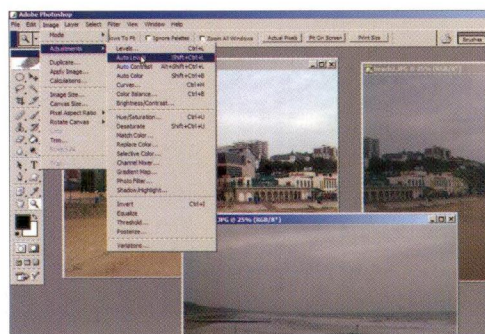
No matter what state your photos are in, it's still possible to create a stunning panorama if you're ready to get your hands dirty with a bit of image tweaking. So fire up Photoshop CS, load the images from this issue's cover disc and get to work. ■

■ Transform basic photographs into panoramic vistas like this by using the Photomerge utility in Photoshop CS



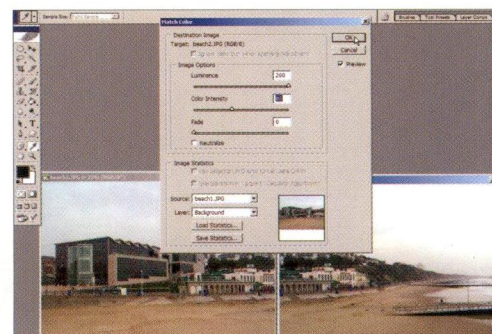
Step-by-step: using the Photomerge feature to

Turn several shots into a fantastic panorama using Photoshop's latest toolset



1: Brighten up

Start by opening images 'beach1.jpg', 'beach2.jpg' and 'beach3.jpg' in Photoshop CS. You'll notice that they are looking a bit dark and dull, so sort them out by clicking 'Image', 'Adjustments', 'Auto Levels' for each image to correct the colour values and make them clearer.



2: Matching colours

The colour of the sand is still inconsistent, so use Photoshop's new 'Match Color' filter. To match 'beach2.jpg' to 'beach1.jpg', make 'beach2.jpg' active and click 'Image', 'Adjustments', 'Match Color'. Set 'beach1.jpg' in the 'Source' field, whack the 'Luminance' slider to '200' and drop 'Intensity' to '80'. Hit 'OK'.



ON THE CD

beach1.jpg
beach2.jpg
beach3.jpg
panorama.tif

CREATIVEPRIMER

Blending colours

As you're fixing the colour of the sand, it's possible that some areas around the waterline may look unnaturally bright as the sand becomes saturated with water. However, there is a quick fix. Click on the 'Eraser' tool on the toolbar and enter a value of around 25% in the 'Opacity' box on the 'Options' bar. You can now begin to fade out colour strokes by drawing repeatedly over the unnatural edges until you're left with a pleasing graduated blend.



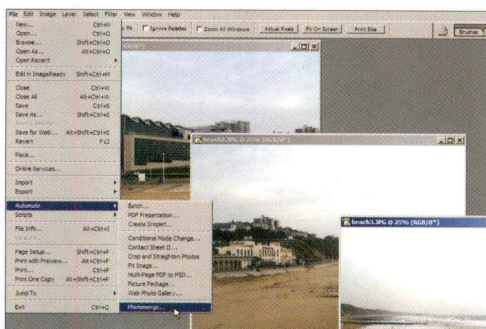
■ You can fade out an unnatural look and create a more pleasing graduated blend by drawing repeatedly over the edges

YOURGUIDE

ANDY STEWART is a trained multimedia journalist and has been using Photoshop since the year dot to complement his love of photography. Having recently made the switch to digital, Andy enjoys nothing more than messing around with images and creating works of digital art from even mundane material.

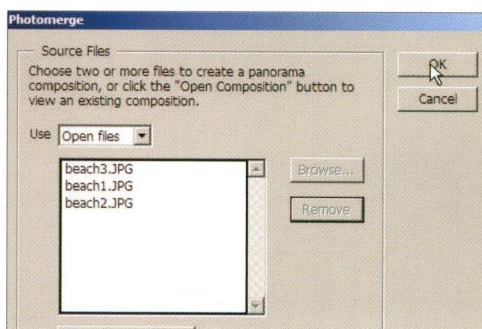


create a breathtaking panorama



3: Launch Photomerge

Repeat previous step for 'beach3.jpg', this time matching to 'beach2.jpg'. Experiment with the sliders until you get a good match. Now it's time to begin stitching them together. To do this, we'll use the new Photoshop CS Photomerge tool, so click 'File', 'Automate', 'Photomerge' to load the interface.



4: Choosing images

Before the interface launches, Photoshop will ask which files you want to stick together. Select 'Open files' in the 'Use' field, and the three open images will automatically be listed in the box below. Now hit 'OK' and the pictures will be loaded into the filter.

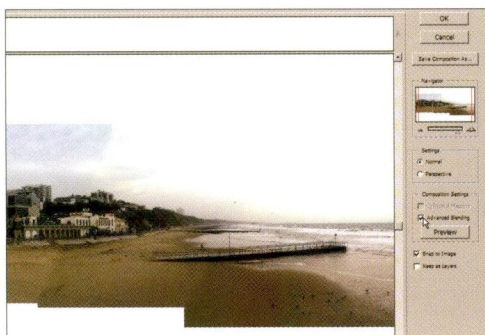


5: Drag and drop

The Photomerge tool will automatically try to match up the images when loaded, but sometimes it can't manage it without some extra guidance. The images are displayed as thumbnails in the top bar, so drag and drop them into the working area, roughly matching them up.

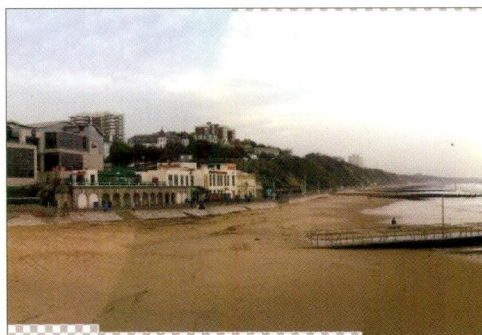
CREATE A PERFECT PANORAMA

Continued...



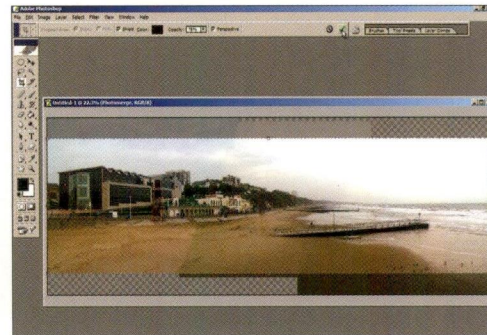
6: Blending options

Photoshop will now analyse them and subtly distort them to make a good fit. On the right-hand control panel, ensure that 'Normal' is ticked in the 'Settings' box, and also check the 'Advanced Blending' box in the 'Composition Settings' area. Finally, make sure 'Keep as Layers' is turned off, then hit 'OK'.



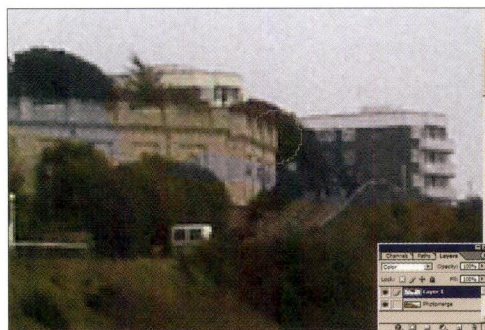
7: Bend me, shape me

Photoshop will now stitch the images together in the order specified, by analysing the pictured objects in detail and bending them so that overlapping elements are blended. Some image elements may be too complicated to fit together, such as the jetty railings, but the overall results will be a close match.



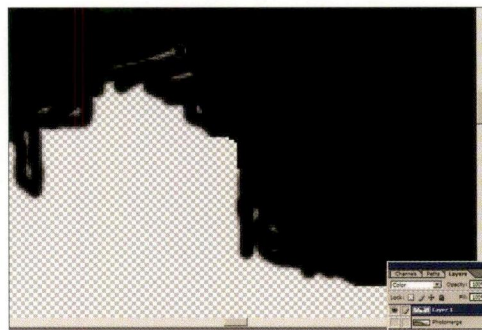
8: Crop out the edges

Because Photoshop had to move the images to align them correctly, some obvious overlapping edges are left at the top and bottom of the picture. Get rid of these by grabbing the 'Crop' tool from the toolbar, and dragging out a rectangle inside the image so the edges are greyed out. Hit 'Enter' to crop.



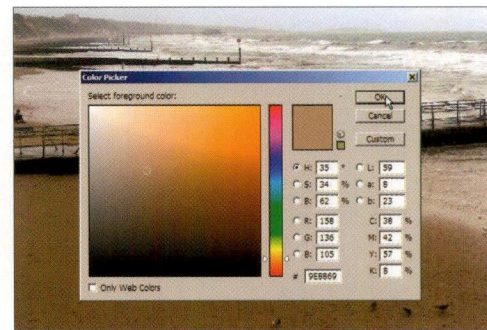
11: Correcting mistakes

Don't worry if you go over the buildings or cliff tops. To get rid of mistakes, zoom right in and select the 'Eraser' tool. Using the '[' and ']' brackets, set a small brush size, and with 'Opacity' set to '100%', simply paint out all the unwanted blue areas.



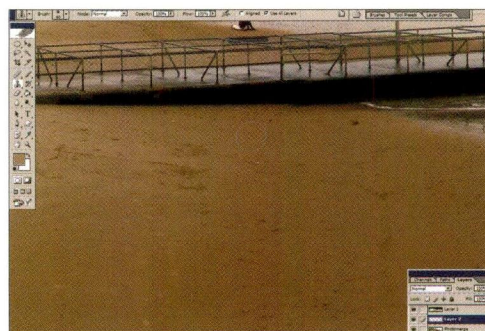
12: Fill in the gaps

When you've traced the outline of the buildings, make the 'Photomerge' layer invisible by clicking on the 'Eye' icon on the 'Layers' palette. This will make the top layer more visible, allowing you to fill in any gaps in the sky colour much more easily.



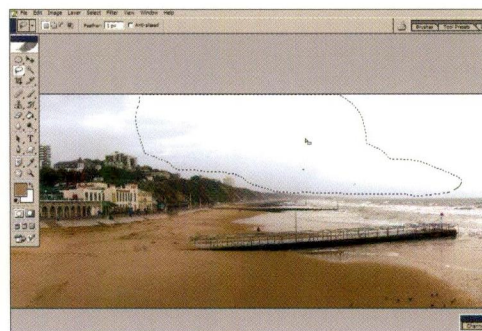
13: Raking the sand

After making the 'Photomerge' layer visible, we can now turn our attention to the sand. We can make it lighter and more yellowy by colouring it in the same way that we fixed the sky. Start by clicking the foreground colour square and set 'R:158', 'G:136' and 'B:105'.



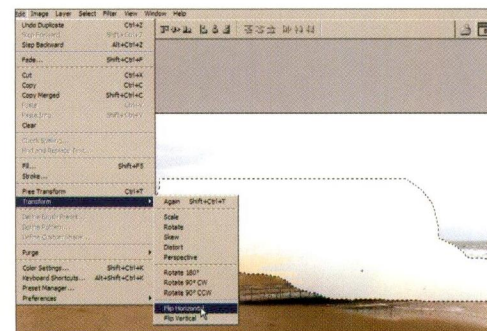
16: Smoothing out

The tonal shift in the sand below the jetty is easily fixed with the 'Clone Stamp' tool. Select the tool from the toolbar, and then set a brush size of '60' in the 'Options' bar and tick 'Use all Layers'. Now Alt-click on a patch of good sand and draw out the join.



17: Duplicating clouds

As a final touch, let's spread some clouds over to the right side of the panorama. Start by zooming out, selecting the 'Lasso' tool from the toolbar, clicking the 'Photomerge' layer thumbnail to make it active and carefully dragging out a selection of cloud as above.

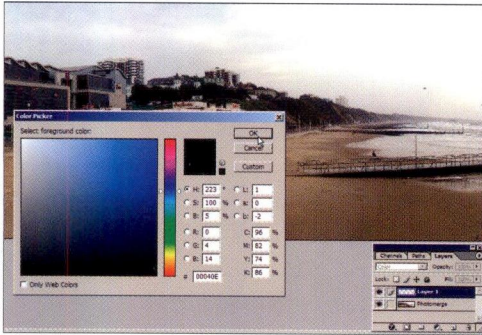
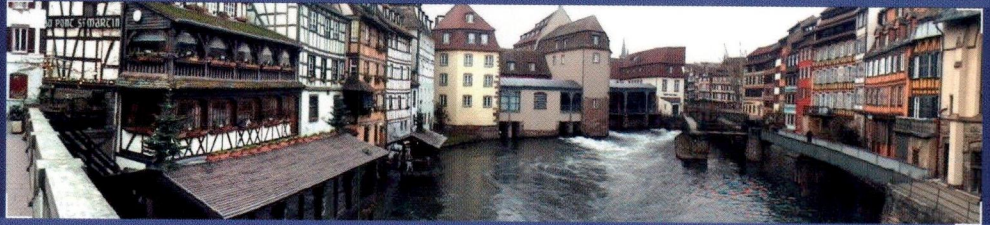


18: Flip it around

Now select the 'Move' tool and duplicate the selection by Alt-clicking inside it and dragging the selection downwards. We now need to flip it horizontally, so click 'Edit', 'Transform', 'Flip Horizontal' and the clouds will be reversed, ready for us to relocate in the right-hand area of sky.

Panoramas from DV footage

Stitching still digital images together into panoramas is now pretty common practice, but less well known is the fact that there's a clever piece of software out there that can do the same for DV footage shot with a camcorder. Called 'SnapDV', this tool captures a video stream and then uses an advanced algorithm to match up frames to make incredibly long panorama JPEGs. Go to www.tinyredmonkey.com and download a free trial version. You might just be amazed...



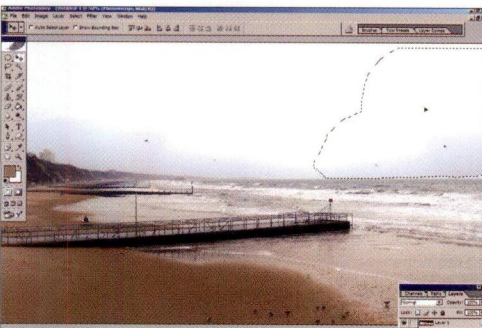
9: Paint in the sky

Next, let's make the sky a bit more blue. On the 'Layers' palette ('Window', 'Layers') click the 'New Layer' button, and in the 'Blending Options' menu on the top of the palette, change the setting from 'Normal' to 'Color'. Finally, click on the foreground colour in the toolbar and enter 'R:0', 'G:4' and 'B:14'.



14: Mellow yellow

Making sure that the top layer is active, grab the 'Brush' tool again and using this new light brown sandy colour, begin painting over the areas of sand, being careful not to paint over the water. Again, use the 'Eraser' to correct any mistakes.



19: Move into position

With the 'Move' tool still active, the selection can now be moved into position. To do this, click inside the clouds and drag them over the sky on the right, above the water. Line up the bottom with the horizon as best you can, but don't worry about gaps because we'll fix them next.



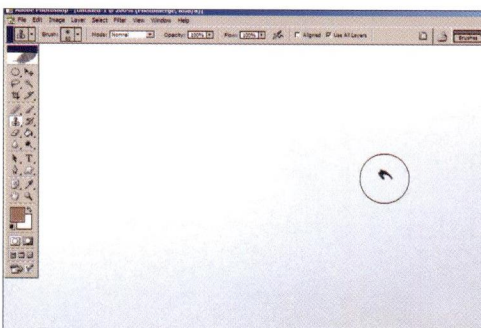
10: Bring out the sun

Grab the 'Brush' tool from the toolbar and in the 'Options' bar, set a size of around '200'. With 'Mode' set to 'Normal' and 'Opacity' and 'Flow' set to '100%', begin to paint on this new layer. The sky will become coloured with a subtle light blue, instantly turning the dull day into summer.



15: Healing the tears

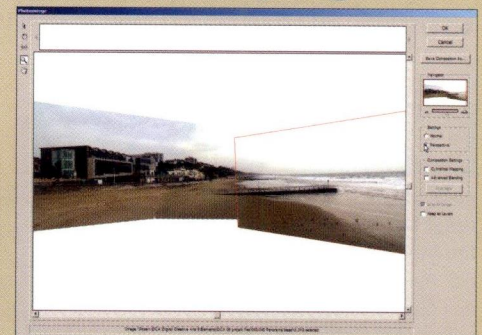
There are still tonal shifts where the images were joined together. Create a new layer above the 'Photomerge' layer, and now grab the 'Healing' brush from the toolbar and click on 'Use all Layers'. Alt-click on a patch of sand to the left to sample it, then click and drag the brush over the problem area.



20: Clone to finish

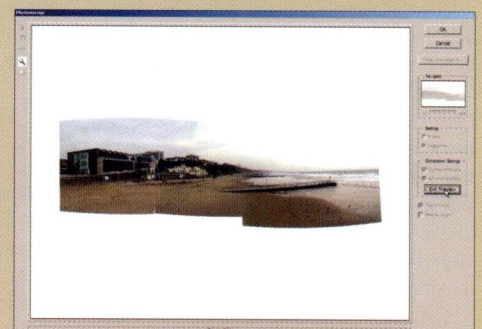
With the clouds in place, hit 'Ctrl' and 'D' to deselect them. Grab the 'Clone Stamp' tool again and Alt-click on a blue area of cloud to sample it. Finally, draw over the gaps below the join to make the clouds meet the horizon, and also paint out the birds. You've now got yourself a perfect panorama.

Advanced Photomerging



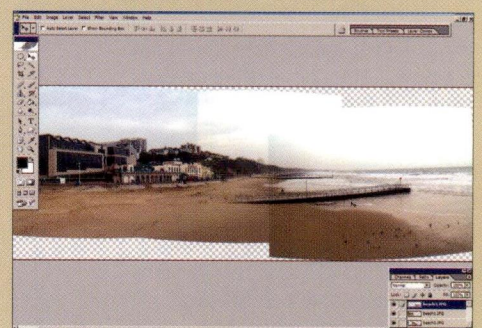
Correcting perspective

When taking a few overlapping images of a scene for use in a panorama, the usual method is to stand on the spot and rotate the camera. As a result, most images are shot from a slightly different perspective. To correct this, click on the 'Perspective' option in the right-hand Photomerge panel.



Coping with barrel distortion

Many digicams have a problem with shooting images at wide-angle, because lenses commonly produce some barrel distortion, which means shots turn out slightly warped. But you can make Photoshop can get around this by clicking 'Cyclical Mapping' in the 'Composition Settings' controls.



Keep as Layers

Hit 'OK' in Photomerge and the program will automatically stitch images together and flatten the layers. However, if you want to maintain each image's individuality, you can have the tool keep each one as a separate layer by ticking the 'Keep as Layers' box.

INTRODUCING THE FILE BROWSER

Organising a mass of digital image files used to be the sole domain of asset management utilities, but no more; the brand new File Browser in Photoshop CS is tanked up with time-saving tricks. Find out what it can do for you right here

While Photoshop CS boasts a wealth of improved features, one of the most useful additions that you'll find yourself using every day is the revamped File Browser. Instead of having to use the old 'Open File' window to track down and open images, you now have the option of organising and editing files all under one fully integrated interface.

Accessed either by clicking 'File', 'Browse' or hitting the folder and magnifying glass icon on the 'Options' bar, the File Browser pops up neatly to display a self-contained interface that Adobe has specifically configured to save you a lot of time when it comes to executing routine file-oriented operations.

For starters, there's the ability to batch-process files without having to manually open them in Photoshop. Using the 'Automate' function, you can apply custom actions to the images you select in the 'File Display' window as well as such rudimentary tasks as group renaming and file format conversion.

In addition, photographers will especially welcome the interactive 'Metadata' palette that offers an at-a-glance view of the statistical information that digital cameras automatically record to a file when capturing a shot.

It's also very common for digital artists to have a large number of image files on their computer hard drives, and searching through them visually can be quite time-consuming. With this in mind, the File Browser's enhanced 'Search' tool can locate files much faster, with the ability to filter results through a number of criteria including customisable keywords.

The best way to find out all that this new tool has to offer is to take it for a spin, so join us as we uncover the time-saving features that can make your file-management tasks much less hassle. ■

Folders palette

Use this palette to navigate through the image folders on your hard drive and pick which images are displayed in the 'File Display'. Context-sensitive menu options are available by right-clicking on a folder, allowing you to add the folder to the list of 'Favorites' in the 'Quick-Jump' menu

Preview palette

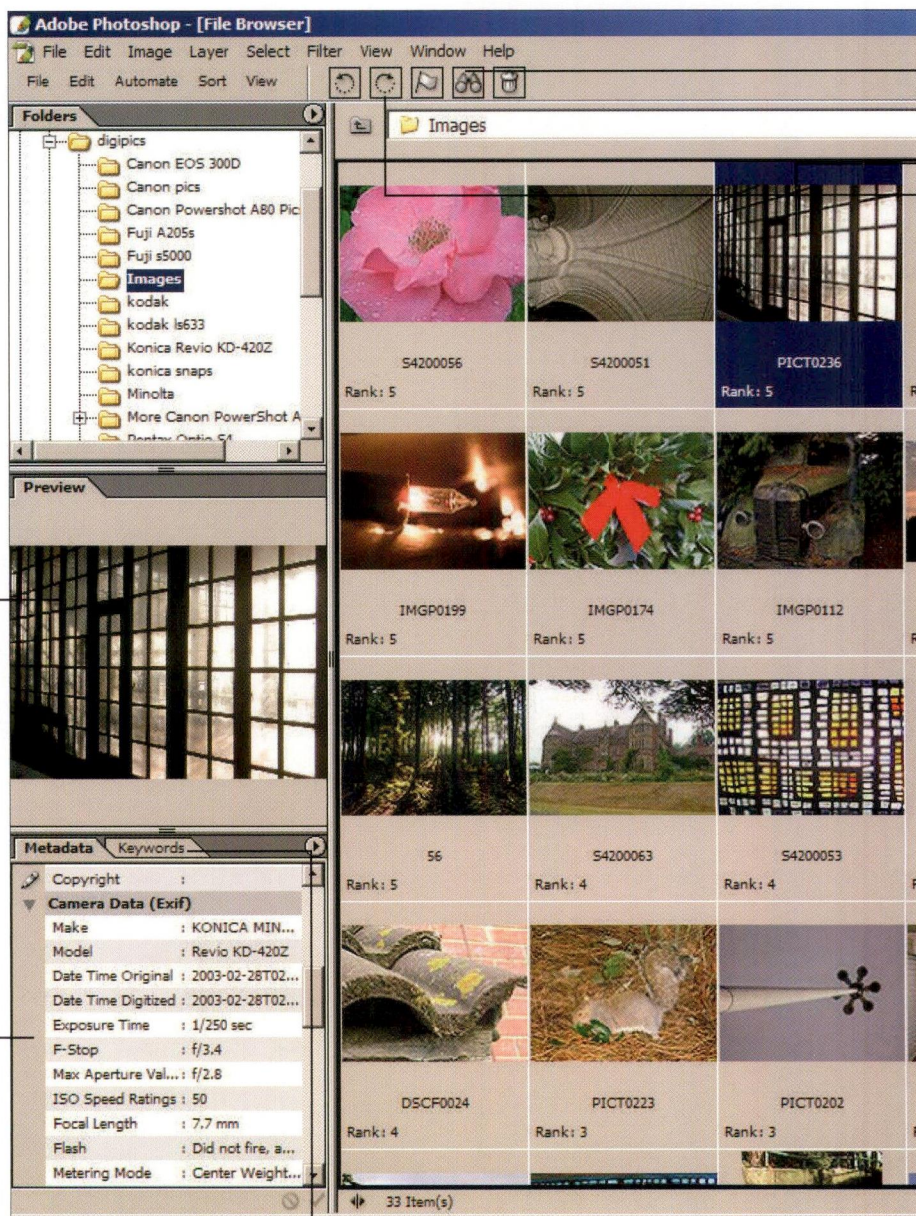
When you click on a thumbnail in the 'File Display' window, Photoshop draws a larger version of the file and presents it here. Useful for quickly seeing an image with more clarity

Metadata palette

This useful palette displays the metadata info recorded with the image when the photo was taken. View stats like camera make and model, date/time the image was taken, shutter speed, aperture values, ISO speeds, etc

Adding keywords

Adding keywords to images makes them easier to sort and search. Here you can use the tree menu to add custom keywords to image files, which can then be used as filters when seeking pictures with the 'Search' tool



CREATIVEPRIMER

Customising display options

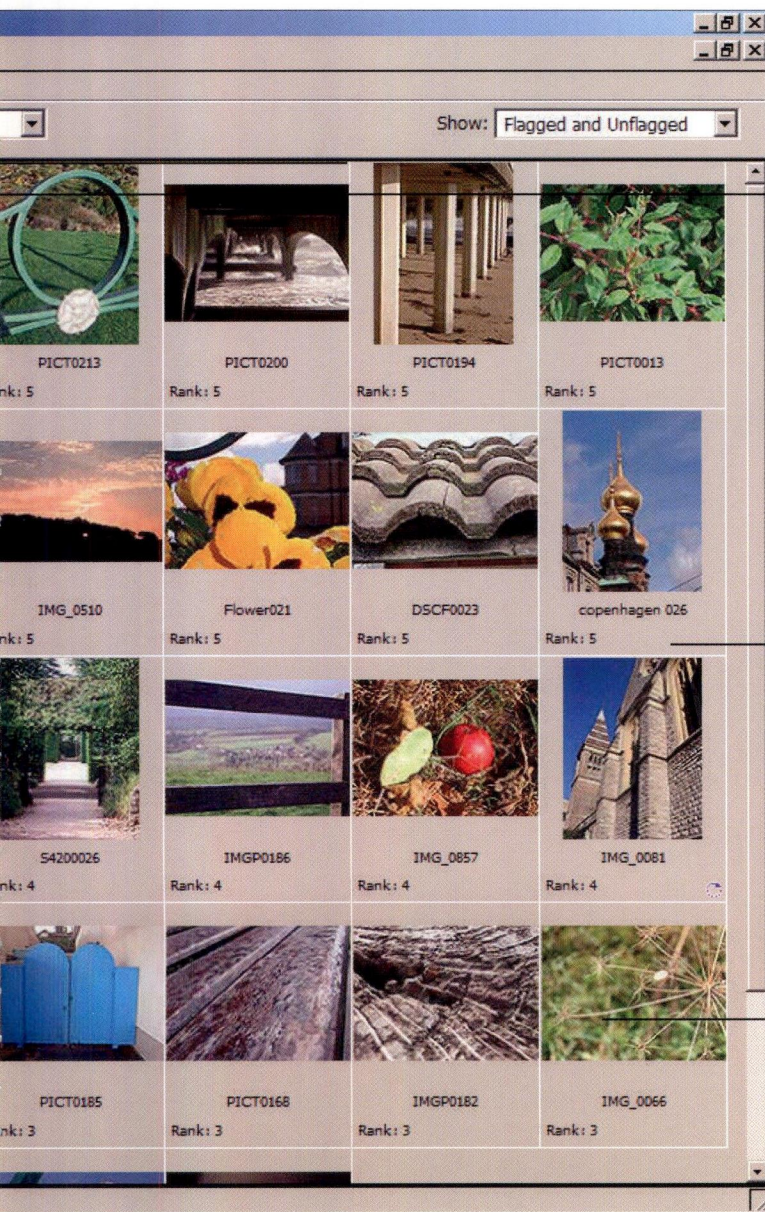
Like the rest of the Photoshop CS interface, you can adjust the look of the File Browser to suit your needs. If the default palette and window positions are bugging you, start by dragging and dropping palette tabs to dock them in new locations. Grab the vertical and horizontal edges of the 'Preview' palette and drag them outward to get a bigger picture. Photoshop will remember your custom settings the next time you open it, so you won't have to repeat the process.



■ Drag and drop any palette to dock it with other windows

Searching images

The Photoshop File Browser packs a strong 'Search' tool, accessed by clicking this quick link or selecting 'File', 'Search' from the drop-down menus. Find images fast by searching for File Name, File Size, Date Created, Keywords, Rank, Flag, File Type and more – plus any combination of the above



File Browser toolbar

The set of five buttons at the top of the File Browser window allow quick access to some of the most common commands. Listed in order, there's 'Rotate CCW', 'Rotate CW', 'Flag File', 'Search' and 'Delete File'

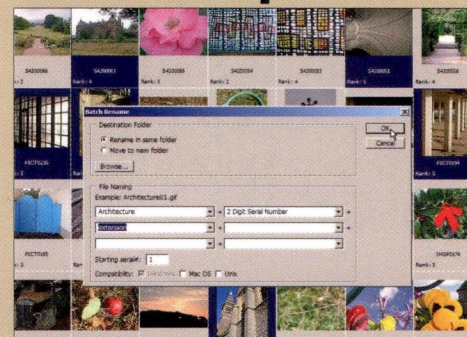
Rank and file

Every digital artist has favourite files that are used more than others, and Photoshop now gives you the option to numerically rank images in order of preference. To do this, just click on a file or Ctrl-click on multiple entries and select 'Edit', 'Rank' from the drop-down menu

File display

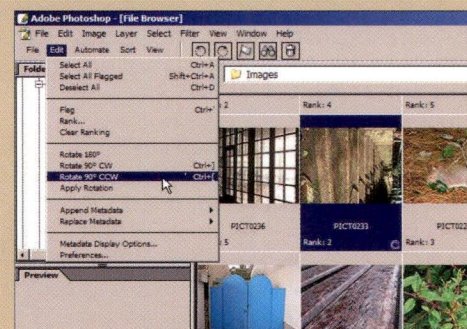
Don't underestimate the power of this drop-down list, because it can save you much time when it comes to navigating through your image folders. You can add your most used folders to the 'Favorites' list by right-clicking on their entry in the 'Folders' palette and hitting 'Add Folder to Favorites'

Unleash the File Browser's power



Batch Rename

One of the best things about the new File Browser is that you can run batch commands from inside the utility. To quickly rename files, Ctrl-click them in the 'File Display' and hit 'Automate', 'Batch Rename'. Add your criteria in the 'File Naming' fields, hit 'OK' and let Photoshop do the rest.



Spin me round

Although the File Browser lets you rotate images, it's worth bearing in mind that first of all it just rotates the thumbnail. Photoshop doesn't properly rotate the image until the next time you load it into the program, when it will open up properly orientated.



Sort images

Organising the way images are displayed in the File Browser is a doddle, thanks to the robust 'Sort' menu. You can order thumbnails by File Name, Rank, Width, Height, File Size, File Type, Color Profile, Date Created, Date Modified, Copyright, Custom. You can also arrange them in ascending or descending order.

APPLY LAYER COMPS IN PHOTOS

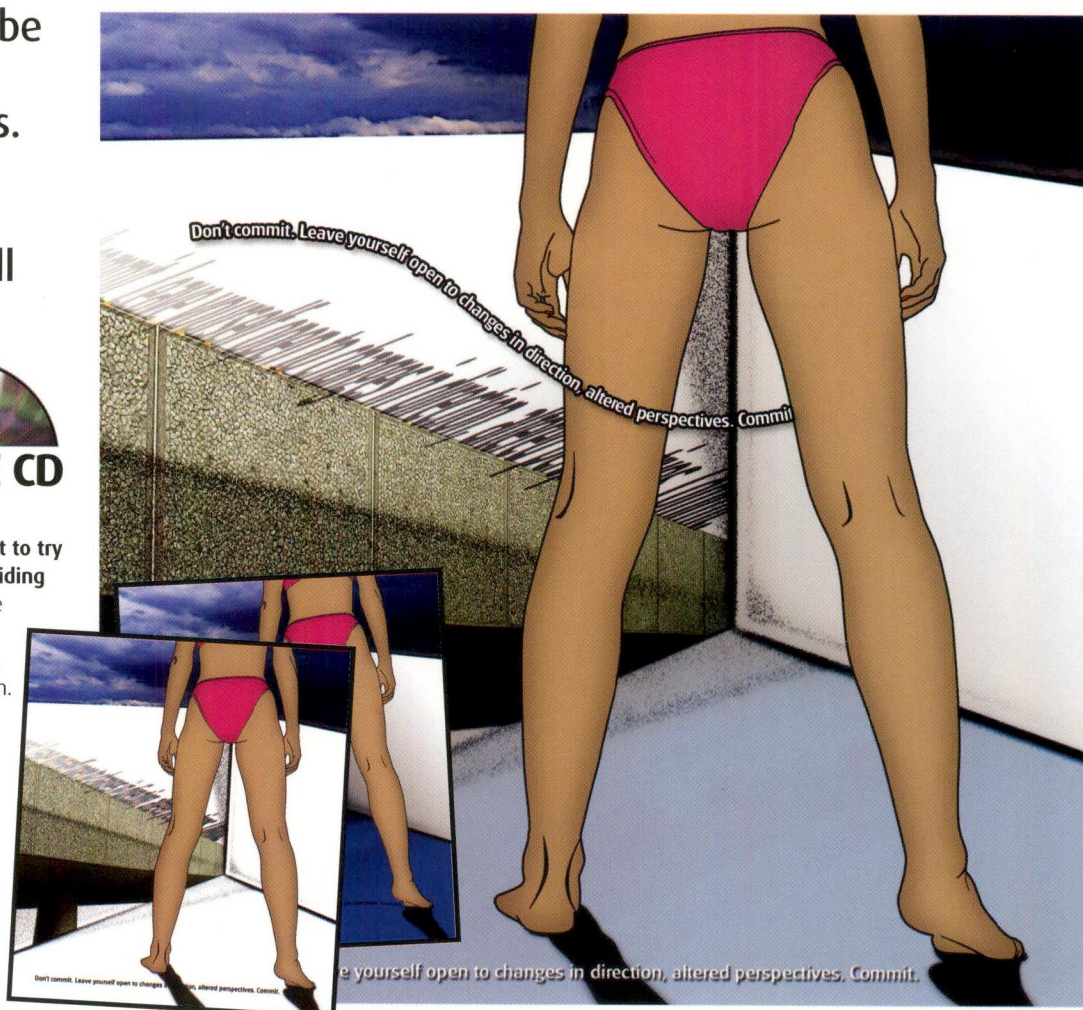
With Photoshop CS, Adobe has introduced some interesting new features. One of the best is the 'Layer Comps' palette, which is a godsend to all graphic designers...



When creating an image, it's important to try out variations of a theme before deciding on the final version. This is even more

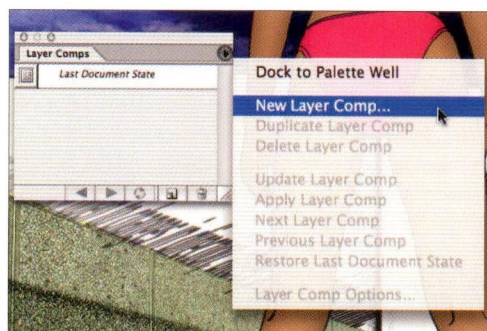
important if you're creating work for a client. They need to see alternative colours, positioning and so on, before they pick what's right for them. The traditional Photoshop method of displaying variations was either hideous misuse of the 'History' palette, or saving out different image versions. Photoshop CS offers another way.

The new 'Layer Comps' palette records information about the layers in your document, allowing you to juggle any number of different images in one file, all sharing common, editable elements. Read on to find out more, or if you have Photoshop CS, check out the sample file on the CD to see them in action. ■



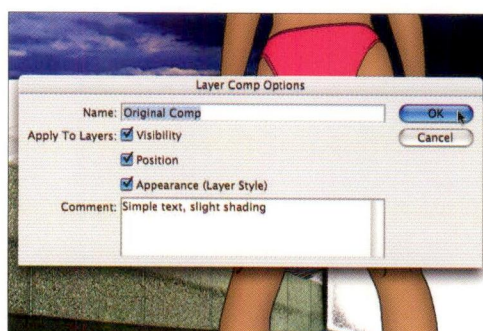
Step-by-step: using Photoshop CS Layer Comps

Setting up a number of 'Layer Comps' in your image is a simple affair, and allows you to keep your options open



1: Creating the first Comp

When you've got your image to a state where you're pretty happy with it, it's time to create your first 'Layer Comp'. If you can't see the palette it's probably hiding away in the 'Palette Well'; failing that, choose it from the 'Window' menu. From there simply select 'New Layer Comp'.



2: So many options

The resulting dialog box lets you choose exactly what information the 'Layer Comp' will store. 'Visibility' records the opacity settings for each layer, 'Position' remembers where every pixel in each layer is and 'Appearance' stores the 'Layer Style' settings. You can also add a descriptive note.



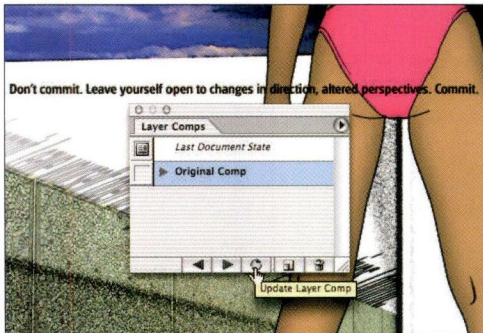
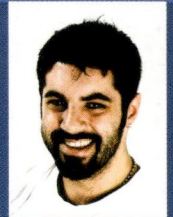
3: Changing your mind

Now you've got your initial image finished, it's time to start playing around with new ideas. In this example we've selected one of the text layers and moved the type to the middle of the image, scaling it a little using the 'Free Transform' tool so that it sits comfortably.

HOP CS

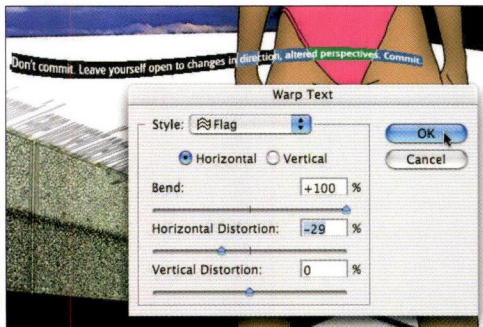
YOURGUIDE

ROSS ANDREWS has been a Photoshop fan since the first time he got his hands on version 2.5 way back in 1993. As Group Art Editor at Highbury, Ross has been putting his Photoshop skills to good use over a wide range of magazines. Being a bit of a Mac whore, the thing Ross likes best about Photoshop CS is that it works in Mac OS X.



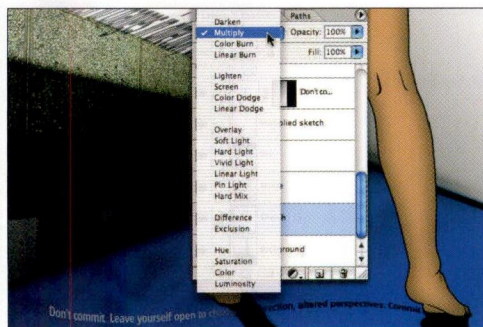
4: Updating the Comp

We prefer this arrangement to the original, so instead of creating a new 'Layer Comp', we're going to update the original. With the first Comp selected in the 'Layer Comps' palette, click the middle icon (with the circling arrows) to update the Comp to match the present state.



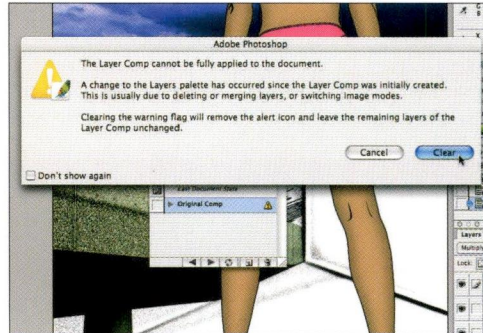
6: Time to experiment

Now's the time to experiment, and you can create as many more Comps as you like. Again playing with the type layer, we're going to warp the text. After duplicating the text layer, click the 'Warp Text' button in the top toolbar, and from the menu choose a distortion that pleases you.



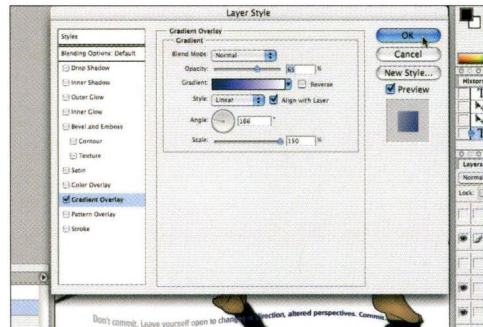
8: Blend modes

Taking advantage of the fact that 'Layer Comps' can remember opacity settings and blending modes, we can change one of the background layers to 'Multiply' to give a very different, more colourful image, which will allow the underlying blue background to show through.



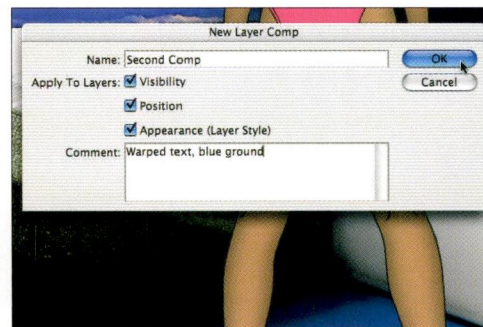
5: Seeking validation

As 'Layer Comps' only record layer information, and not saved states, it could cause you some problems if you delete or merge any layers. If you do this, a small warning triangle appears next to the Comp's name – you have to either update the Comp to match, or just clear the flag.



7: Layer Styles

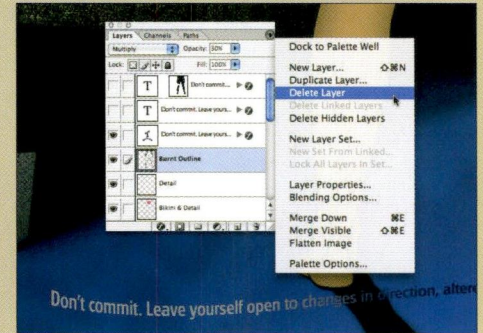
Because 'Layer Comps' record appearance information, we can also apply 'Layer Styles' to alter how the text looks. We've moved the text to the bottom of the image and have chosen 'Blending Options' from the 'Layer' palette menu. A simple 'Gradient Overlay' adds a little interest to the type.



9: Create the second Comp

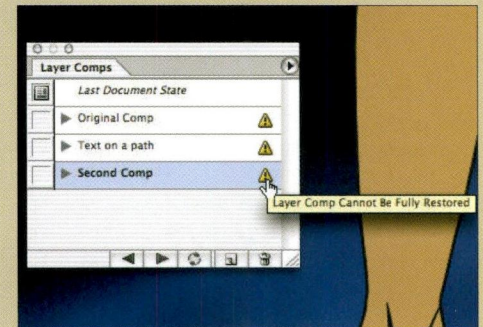
Again, we're pretty happy with the result, but unsure whether it will sit better on the printed page than the original. To keep your options open, you can create a new Comp by either replicating steps one and two, or by clicking the turned-page 'New Layer Comp' button at the bottom of the palette.

Validate your Layer Comps



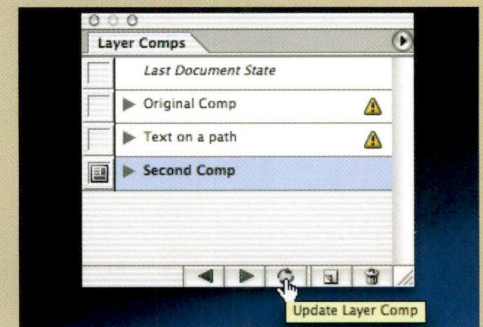
1: Oops, gone and broken it

There are certain actions that 'Layer Comps' just can't deal with. If you delete a layer, merge two or more layers together, or perform a colour mode change, your saved Comps simply won't work. 'Layer Comps' only reference the layer attributes, not the actual contents.



2: Danger, danger

If you do something that breaks a 'Layer Comp', a small yellow warning triangle appears next to the Comp's name, telling you that the Comp cannot be fully restored. If you notice this quickly, you can go back and undo the action, and the 'History' palette will save you.



3: Just accept it

If you can no longer undo the action, or you're perfectly happy with the results, you can simply choose to update your Comps to match. Click the icon to the left of the name to apply the partial Comp and then click the 'Update Layer Comp' button to record the new state.

APPLY LAYER COMPS IN PHOTOS

Quick guide to the Photoshop CS Layer Comps palette

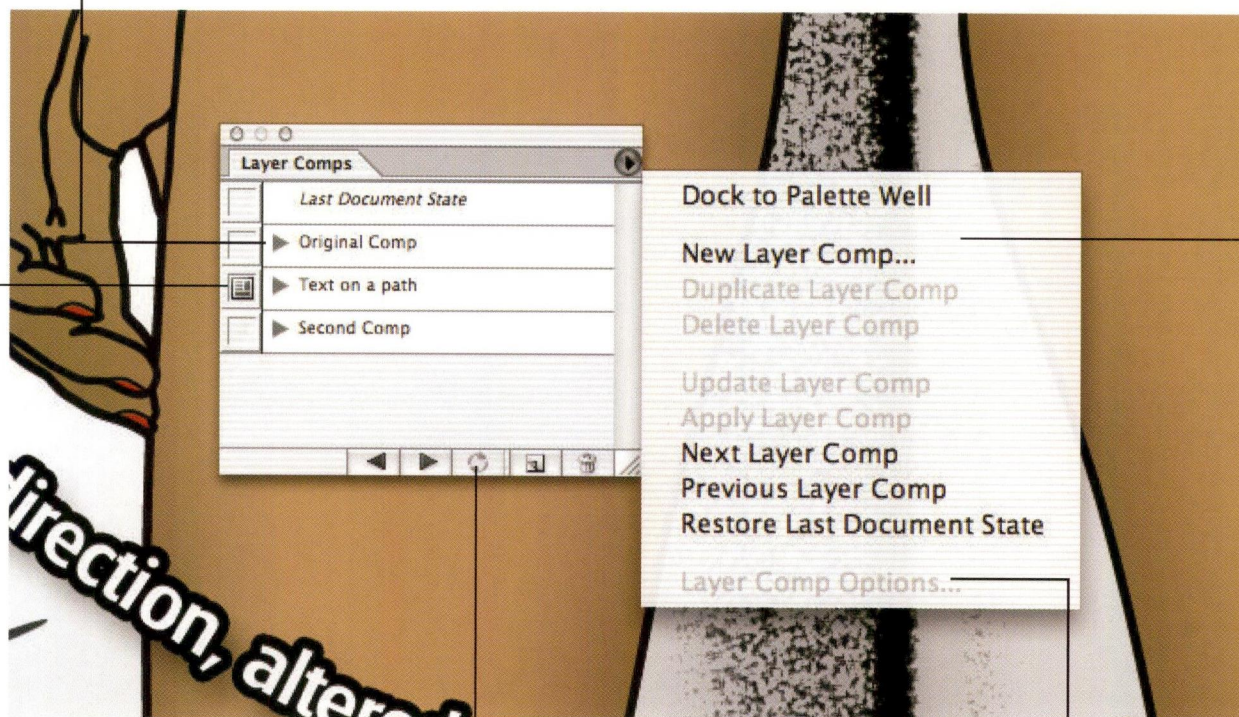
The 'Layer Comps' palette is pretty easy to get to grips with – just think of it as a hybrid of the standard 'Layers' palette (an old friend since version three) and the 'History' palette

The Layer Comps themselves

Each Comp can have a name and a short description, viewable by clicking the triangle before the name

The 'Layer Comps' palette menu

Although many of these options can be exercised through shortcuts in the palette itself, it's useful to have them all in one place



Apply icon

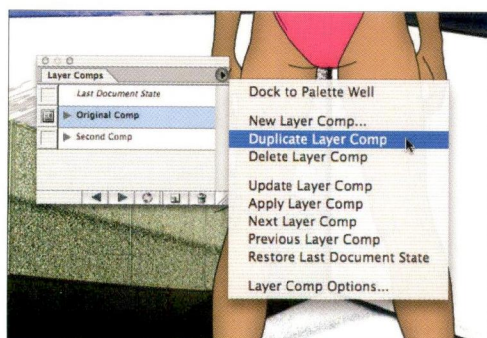
Clicking in this area applies the relevant Comp to the image, restoring all of the saved layer settings, options and styles

Update Comp

Clicking this icon with a Comp's name selected updates the Comp to match the present document state, which is vital if you make important changes

Layer Comp Options

You can configure the Comp's options here, or by double-clicking the title area in the palette



10: Duplicating a Layer Comp

For the next version of the image we're going to work from the original 'Layer Comp'. Select the Comp you want to work from in the 'Layer Comps' palette and then choose 'Duplicate Layer Comp' from the palette menu to create a copy based on the original's settings.



11: Change the options

At the very least we're going to want to change the name of this new Comp, which can be done just by double-clicking its name in the 'Layer Comps' palette. To change more options, double-click on the Comp but not on its name, and the options will appear for you.



12: Text on a path

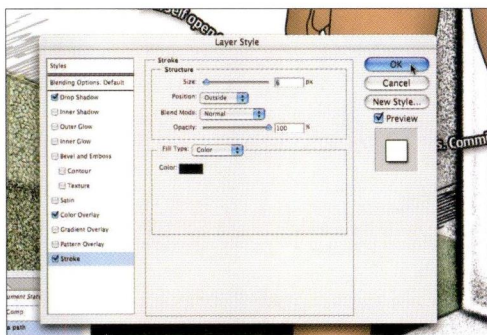
For this version we're going to try out using the new 'Text on a Path' feature. To see how to do this in detail, check the panel on page 43, but it really is a simple affair. We've duplicated the text layer, created a path using the 'Pen' tool, and then pasted our text in.

HOP CS

CREATIVEPRIMER

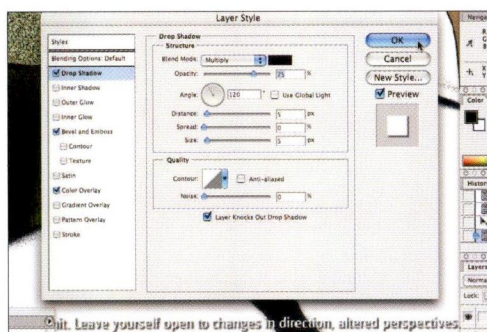
What to do with your Comps

Once you have a full complement of 'Layer Comps' saved within your image, what exactly can you do with them? For most people it will be enough just to switch between versions of an image, but if you need to separate them, perhaps to send to a client as JPEGs or PDFs, you can do this by simply selecting the version you want and picking 'Save As' from the 'File' menu. This allows you to take advantage of Photoshop's extensive file type support, including multi-page PDFs.



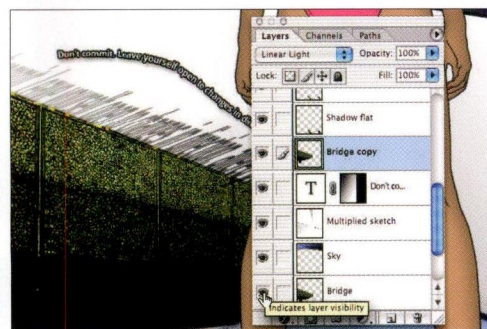
13: Having a stroke

To help the text stand off the image in its new position, we can use 'Layer Styles' again. This time we've added a white 'Colour Overlay' (easier than changing the text colour itself) and added both a 'Drop Shadow' and a thick black 'Stroke' to really make it stand out.



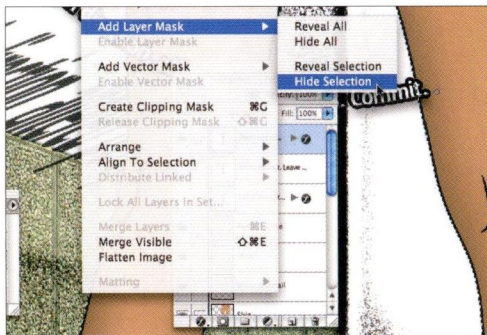
15: Some more styles

This time we're going to keep the original text visible, but change the style again. With this type layer active, choose 'Blending Options' again. This time we've used a 'Color Overlay' to change the text to white, but we've added a slight 'Bevel' and a 'Drop shadow', too.



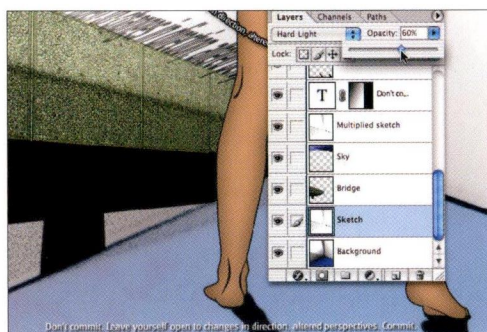
17: The layer order trick

'Layer Comps' remember the position of elements on layers, but they don't remember the order of the layers themselves. A simple trick to get around this is to duplicate the layer and move it to a new position, hide the original and update the Comp to record the new visibility settings.



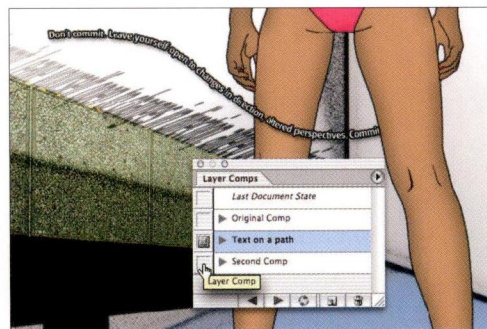
14: Adding a Layer Mask

To give the impression that the text falls behind the woman's leg, we're going to add a 'Layer Mask'. With the type layer active, the selection of the woman loaded and the left leg area removed from the selection, choose 'Add Layer Mask' and 'Hide Selection' from the 'Layer' menu.



16: Changing opacity

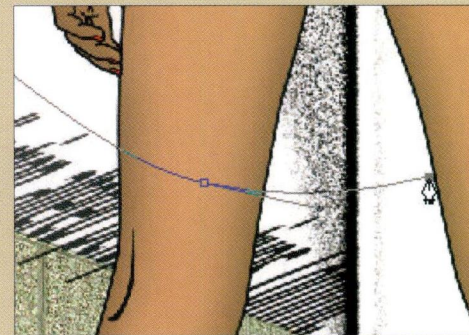
To once more add a little colour, we can drop the opacity of the 'Sketch' layer, but leave it set to 'Hard Light'. This will allow the blue background layer to show through, but this time as a brighter cyan, which will match the tone of the image and help the text stand out.



18: Applying Comps to your image

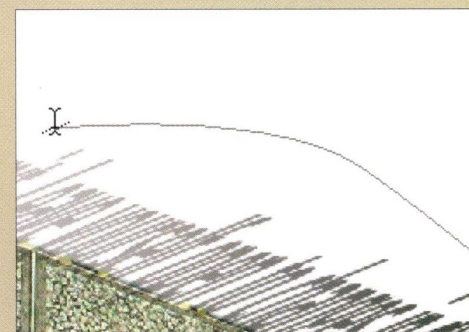
Now we have three finished 'Layer Comps', each recording significantly different appearances. To view the Comps you need to apply them to the image - simply click the 'Layer Comp' icon next to each Comp's name in the palette to switch between the different states.

Using the Text on a Path feature



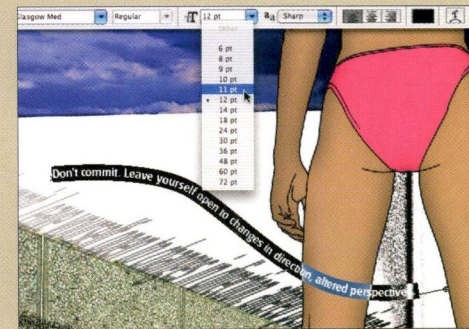
1: Creating the path

It may seem obvious, but the first step to placing text onto a path is to actually create the path. This is done using the 'Pen' tool, but make sure it is set to 'Paths' and not 'Shape Layers' in the top toolbar. Click with the pen to add points, dragging when you click to create curves.



2: Switch to the Type tool

Choose the basic 'Text' tool from the 'Tools' palette and then simply click it on the path that you've created. You'll know when the cursor is in the correct position, because the 'I-Beam' will gain a small diagonal appendage, telling you that it has recognised the path.



3: Type away

You can now type as usual and the text will follow your path to the letter. As with any text in Photoshop, you can enjoy complete typographic control, and you can spell-check, configure anti-aliasing and apply all manner of styles and blending options.

CREATE STRIKING IMAGERY

Using the creative features of Photoshop and a studio portrait of a model, we show you how to create this stunning contemporary graphic illustration in a few easy steps



ON THE CD

cover model.jpg
finished.jpg

■ Using the techniques detailed in this tutorial you'll be able to turn any photograph into a stylish piece of digital illustration. All you need is a copy of Photoshop CS and a reasonable amount skill with the 'Pen' tool

YOUR GUIDE

JASON JAROSLAV COOK has been a digital illustrator and pixel pusher for around six years. As a commercial illustrator he has divided his portfolio into three varying styles and given each their own name and entity. 'Jacey' is a style that focuses on 2D and 3D generated digital art, a style that is commercial and very accessible. 'Flatliner' offers a sharp clean vector style that has proved popular within the lifestyle and IT industry. 'Jaroslav' is his personal approach to creating art and is an ongoing project. Find out more at www.jasoncook.co.uk



Digital artists have been combining computers and photography for quite some time now, and as software is improved and modified, so too is the rate at which illustration styles change. Keeping ahead of the game is an important aspect of being a successful digital artist, and the advent of Photoshop CS has helped this process to become easier. There are some great new features in Photoshop CS, such as 'Layer Comps' and the 'Filter Gallery', which when combined with more traditional features such as Blending modes and clipping paths, help you keep up with current styles and trends.

An obvious way of seeing what Photoshop can do is to make changes to a photo – in this example, a studio shot of a model. Retouching images of models

doesn't have to be restricted to deleting the odd spot, moving unwanted hair, making the eyes brighter or smoothing out the skin – we now have the ability to be quite radical in the way images of people are used within our illustrations. In this workshop, we're going to show you what techniques can be used to give a photo a more illustrative and graphic look. We will then add elements that build on the background and foreground structure, bringing the whole illustration together. One of the great things about Photoshop is that a good deal can be achieved by using just a few techniques, and sometimes the most complicated-looking illustrations can be the simplest to do. Having said that, you will need a fair amount of experience to complete this workshop. ■

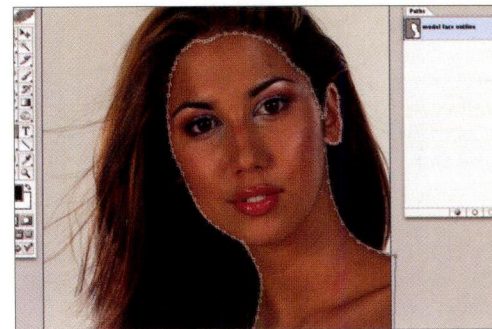
Step-by-step: create a graphic photo illustration

After preparing the model shot to be used in our illustration, we'll add all the great and cool contemporary graphic elements that will form our image



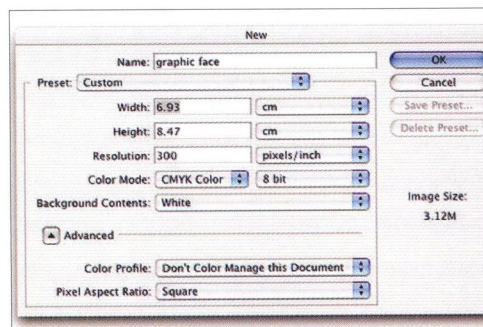
1: Lights, camera.... path

Let's start by opening the 'pscs_model.jpg' file from the CD. Go to 'Window', 'Paths' to make the 'Paths' palette viewable and then click the 'New Path' layer icon at the bottom of the palette. Call the new layer 'model face outline'. Now select the 'Pen' tool from the 'Tool' palette.



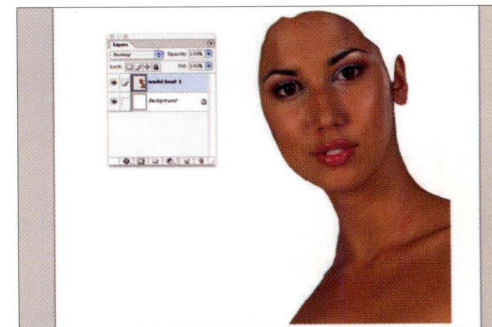
2: Cut out her face

Use the 'Pen' tool to create a clipping path around the model's head. Zoom in to the model's head and begin to create a path. When you need to move around the head, press the spacebar to use the shortcut for turning the cursor into the 'Move' tool.



3: A new start

Go to 'File', 'New' to set up a new document. Set the 'Preset' to 'Custom' and then make the document '6.93cm x 8.47cm'. Set the 'Resolution' to '300 pixels/inch' and keep the background white. Set the 'Color Mode' to 'CMYK' and '8 bit'. Call the new document 'graphic face'.



4: Paste up

Go back to the document with the girl's image and the path. Click the 'Make Selection' tab at the bottom of the 'Paths' palette to turn the path into a selection. Pick 'Edit', 'Copy', switch to the new document and go to 'Edit', 'Paste'. This creates a layer in the 'Layers' palette. Call this 'model head 1'.

CREATE STRIKING IMAGERY

Get to know your Photoshop CS tools

Although we're creating an image that's radically different from its original incarnation, we're actually using very few tools to do it. Here's a quick look at the main features of Photoshop CS that we're using to create the artwork

Virtual Biro

The 'Pen' tool is one of the best tools in Photoshop and the sooner you can master its tricks and uses, the better. Experiment with the 'Freeform Pen' tool and understand how the 'Convert Point' tool works to make your segment curved

Cutting it short

Shortcuts help speed up the work process, as we've seen with the spacebar. Other good ones to use include double-clicking the 'Hand' icon on the 'Tool' palette to make the whole document fit within the screen area and double-clicking the 'Zoom' tool to give your image a 1:1 ratio

Cool blender

This is where you'll find 'Blending modes', which we'll make good use of in this tutorial. You'll find that 'Overlay' and 'Screen' tend to give the best results. The others can be a bit too heavy or light



Paving the way

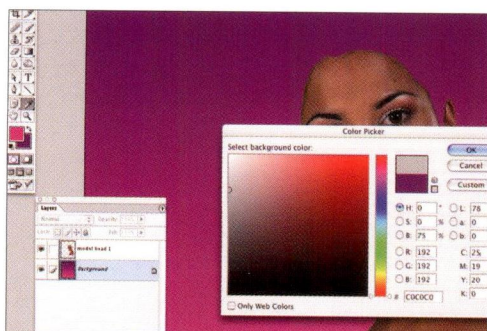
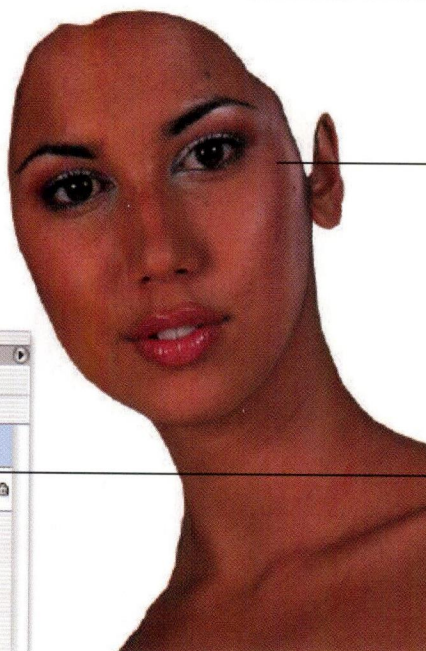
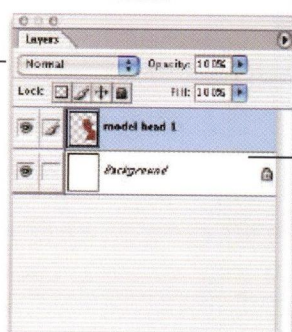
The 'Path' palette is just as important as the 'Layers' palette. Make sure you keep your paths saved because you never know when you need to go back to them, especially if you want to make a selection of something again

Seeing is believing

Sometimes when you're working on an image, it's hard to see the end results. Over time and with huge amounts of practice, though, you will be able to see past the initial stages and view the final outcome

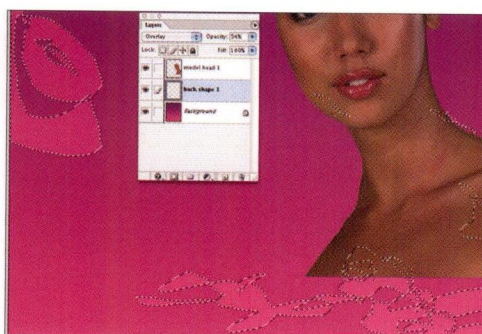
Name that layer

Always name your layers. There is nothing worse than not being able to find a layer in the 'Layers' palette, especially if the thumbnail preview is hard to work out



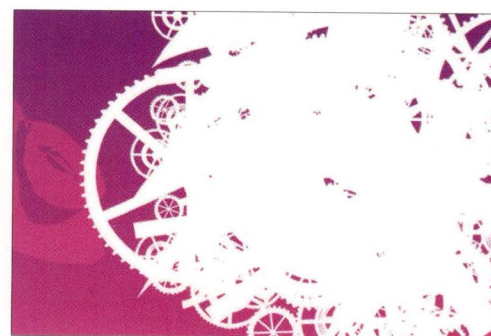
5: Gradual gradient

Select the background layer, and change the foreground and background colour by double-clicking the appropriate colours in the 'Tool' palette. Set the foreground to 'R 214', 'G 60' and 'B 136' and make the background 'R 116', 'G 41' and 'B 113'. Use the 'Gradient' tool to fill the layer.



6: Scattered shapes

Now we will add a few random shapes with the 'Lasso' tool. Loosely draw some shapes like the ones above, fill them with white and then set the Blending mode to 'Overlay' and set the Opacity of this layer to around '54%'. Call this layer 'back shape 1'.



7. Like clockwork

Create a new layer, call it 'Cogs', and then use the 'Pen' tool to create a cog path. Turn this into a selection and fill with white. Repeat this a few times until it looks something like the above. You may want to hide the model's face by clicking the 'eye' icon on the model's layer in the palette.

CREATIVEPRIMER

To model or not to model

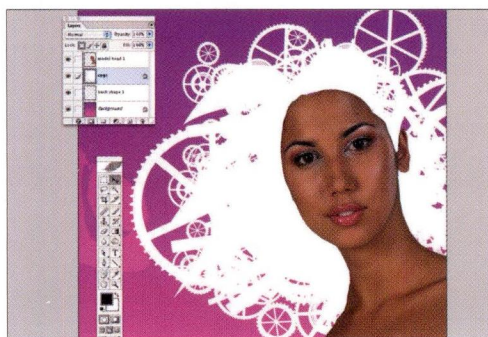
You don't need an expensive photo shoot to create these types of illustrations. If you feel like using your own image then go for it. Just try and make sure the shadows are evenly balanced, and the picture is of the highest quality (see right-hand example). A good scan from a print or negative is vital. And if you're using a digicam, make sure it has a decent resolution. It's easy to lower the resolution of an image when working with it, but trying to boost the pixels in Photoshop is a definite no-no (see left example). If you try to increase the resolution, you'll end up with a bad case of interpolation, and a soft and blocky-looking image.



SAYWHAT?

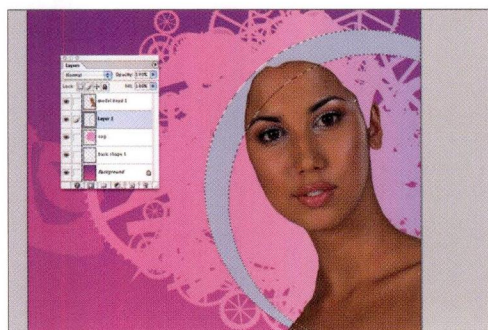
BLENDING MODES

By applying Blending modes, you can easily create stunning elements for your illustration. Blending modes work by affecting a layer's transparency. By using any of the preset modes within the 'Layers' palette, you can change the way a layer's pixels blend with the layer or layers below. The great thing about Blending modes is that you often come across some 'happy accidents' by just experimenting, because the desired effect may not always be the one you set out to achieve.



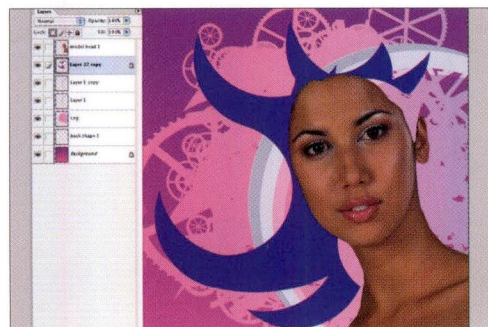
8. Hair today

Now just keep repeating the previous step so that it resembles something like the image above. Try switching the model's face back to 'Visible' so that you can gauge how the cogs fit around the model's head. The plan is to get them to form the outline of the hair.



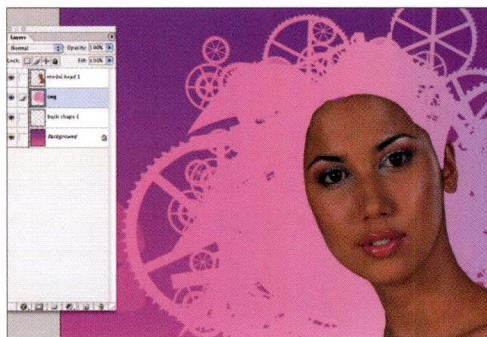
10: Arcing it

Once you're happy with the colour of the cogs, create a new layer above the 'Cog' layer and use the 'Elliptical' tool to draw an oval. Once that's done, hold down the 'Alt' key to create a crescent shape and then fill it with a light blue colour. See above for example.



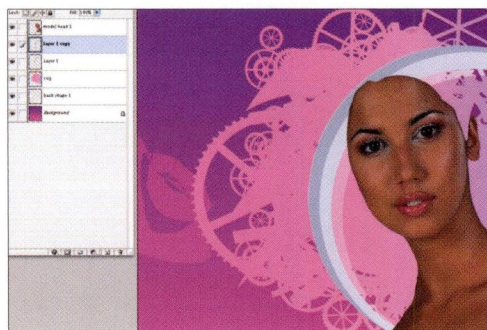
12: Abstract hair piece

Using the 'Elliptical' tool and the techniques employed in step 10, create an oval and hold down the 'Alt' key to delete parts of it until you get something similar to the result shown above. Fill with a dark blue. Position the shape as shown in the screenshot and then turn its Blending mode to 'Overlay'.



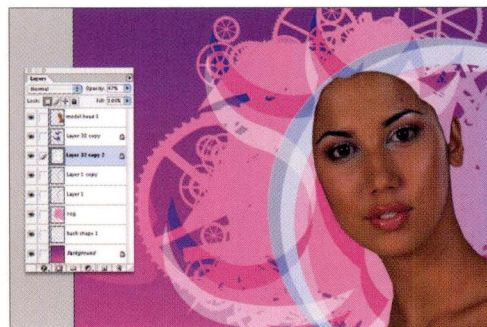
9. Filling it

Lock the transparency of the 'Cog' layer by switching it on under the Blending modes and the use the 'Gradient' tool to fill the cogs with a similar gradient and colour to that shown in the above image. You'll probably need to do a bit of experimenting to get the correct balance.



11: Double arc please

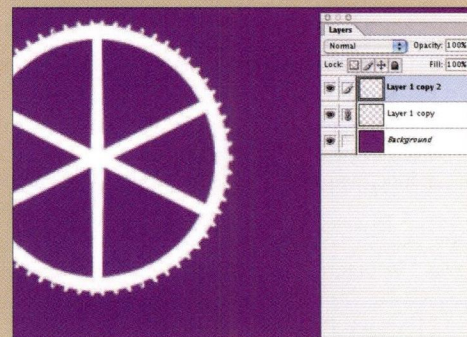
Now duplicate the 'Arc' layer you've just made. Move this duplicated layer down and to the right of the original layer so it's offset. Set the Blending mode for this layer to 'Overlay' to get a nice transparency effect when the two layers are over each other.



13: All white

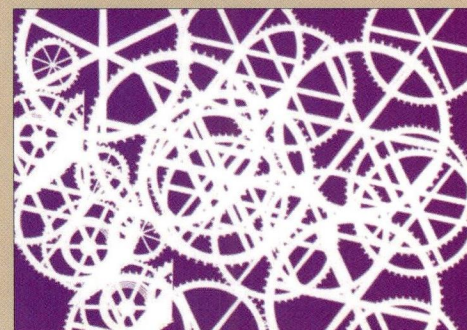
Duplicate this layer, but fill the shape with white and set the Blending mode to 'Normal' and the Opacity to '47%'. Move the layer in the 'Layers' palette below the original one and then offset it down and left so that it looks something like the above image.

Adding more cogs to the machine



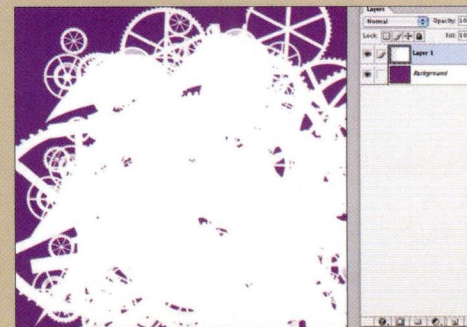
Make one cog

To speed up the process of creating cogs, draw a quarter of one with the 'Pen' tool and then duplicate the layer and flip it horizontally. Now position the two and merge the two layers together. Duplicate that layer and then flip vertically and merge.



Cog mania

Keep duplicating the 'Cog' layer and position the duplicate cogs all over the place so it looks similar to the tutorial image. To stop things looking too similar, it's an idea to add a few new cogs that provide some variation in size and shape.



Merge the cogs

Once you've got your different cogs in position, merge all of them together. As you can see from our example, there are areas of solid colour in among the cogs. Do this by adding a bit of white in the middle to fill up the area, rather than just layering on more and more cogs.

CREATE STRIKING IMAGERY

The spanking new Filter Gallery

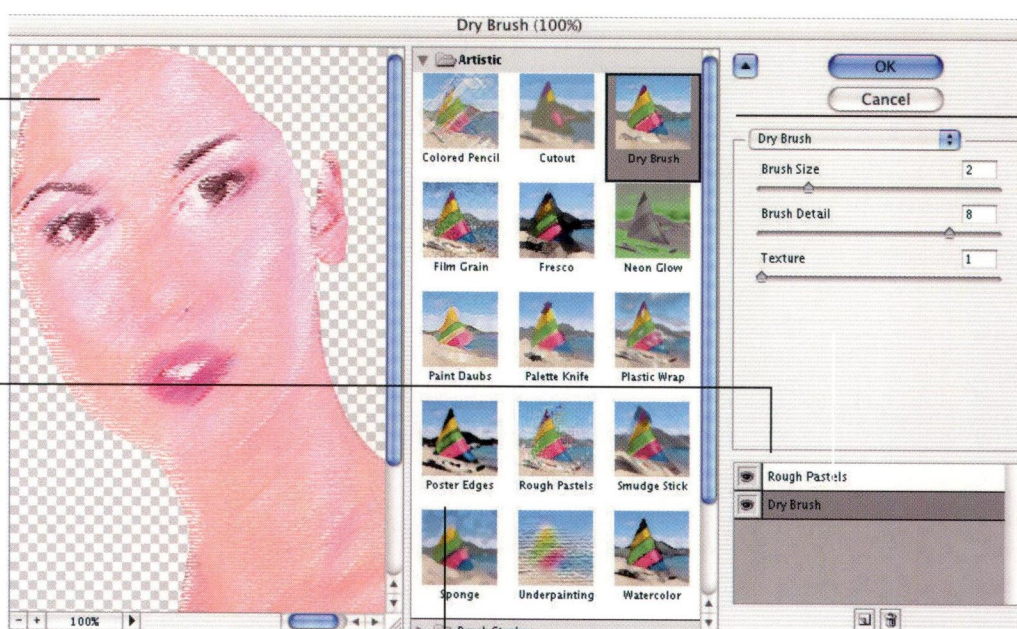
This new addition to Photoshop CS provides access to a wealth of filter types. Although we aren't using it in this tutorial, it's a great way of experimenting with different skin textures for your model

Preview pane

The 'Preview' pane now gives you full access to the image you are applying the filter to. You can zoom in and out and move around the preview to see the effect at different ratios

Filter Settings area

This offers easy access to the 'Filter' settings. As with most filters, this area will change depending on which filter you have selected

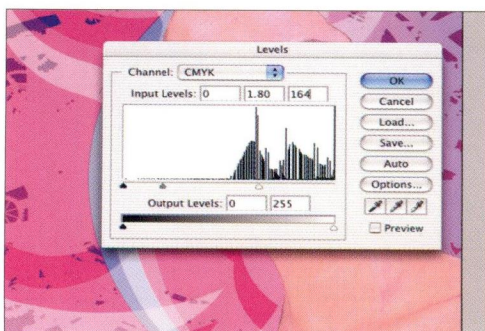


Effects layer

You can now mix and match your filters. Using the 'Effects' layer, you can place several filters together and preview the results before rendering them to the final image

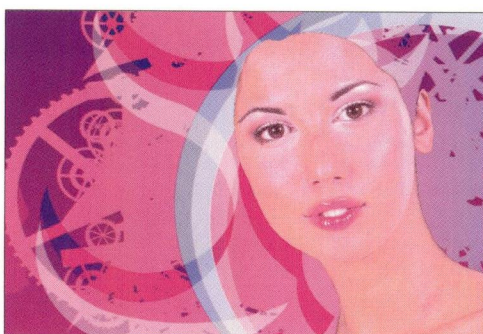
Filter group

This is a great new addition to Photoshop CS, and allows you to see what the filter in question actually looks like. It's also a great time-saver, because you don't have to go through the filters and try each one out to see what it does



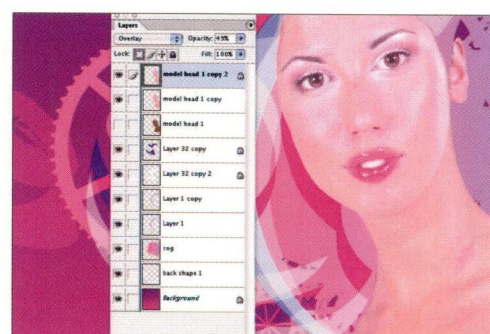
14: Balanced head

Go to the 'Model head 1' layer, select it and then duplicate it. Once it's duplicated, switch it off again by clicking the 'eye' icon and then select the copied layer. Go to 'Image', 'Adjustments', 'Color Balance', set the Midtones to '+53', '+6', '0' and the Shadows to '0', '0', '+33'. Finally, set the Highlights to '+72', '-43' and '16'. The model's face should now look like the screenshot above.



15: Balancing the colour

Now it's time to get to work on the model's skin. Go to 'Image', 'Adjustments', 'Color Balance', set the Midtones to '+53', '+6', '0' and the Shadows to '0', '0', '+33'. Finally, set the Highlights to '+72', '-43' and '16'. The model's face should now look like the screenshot above.



16: Skin simple

Let's duplicate the 'Model head 1 copy' layer and work with that. Go to 'Filter', 'Gaussian blur' and set 'Pixel Radius' to around '2.1', then click 'OK'. Set the Blending mode of this layer to 'Overlay' and the Opacity to around '49%'. This should now smooth the skin.

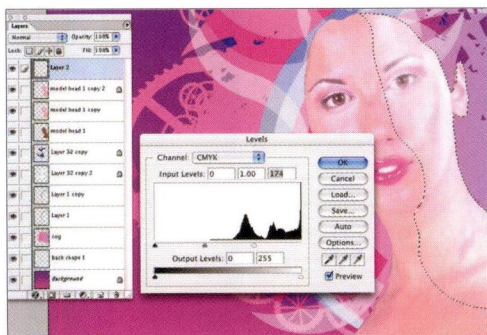
Paths

Using the 'Pen' tool to create paths in Photoshop is great for making precise selections. We've used the 'Pen' tool to make a selection around the model's head to separate it from the background. Paths can be closed like a square or open like a line, and the paths are made up of anchor points and segments. Anchor points help to create directions for the segments and you can use the anchor points to curve the segments by dragging out direction points or handles from them. This is a much better way of making selections, rather than trying to do it freehand with the 'Lasso' tool.



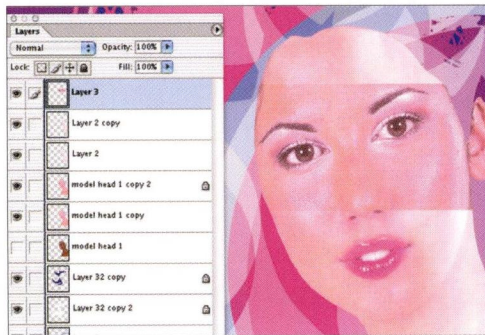
INSPIRATION ONLINE

Faced with a blank screen and looking for some inspiration? A good idea is to see what other illustrators are up to. Hunt around on the Web and you'll find a whole host of artists that use Photoshop. Some may even share their knowledge if you email them. A good place to start looking for artists doing wonderful things in Photoshop is, unsurprisingly, Adobe's site at www.adobe.co.uk/products/gallery/photoshop.html



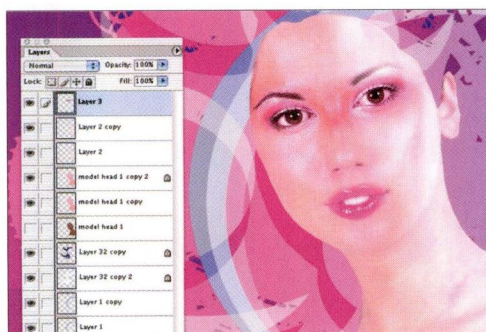
17: Pale face

Using the 'Lasso' tool, make a rough selection in the right-hand side of the girl's face and feather the selection by about 12 pixels. Copy the selection and then paste it back into the document. Reposition it and set the Levels to '0', '1.00', '174'. Click 'OK'.



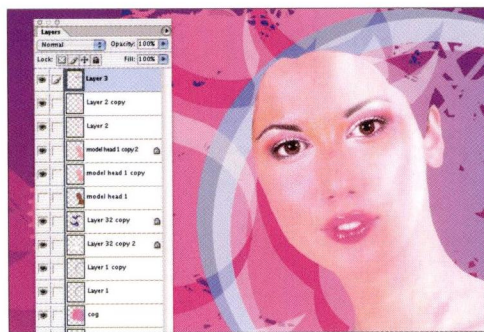
18: Getting paler

Duplicate the layer so that it strengthens the white and makes her face look even more pale. Select the 'Model head 1 copy' layer and use the 'Rectangle Marquee' tool to select just around her eyes. Paste this new selection as the top layer in the palette.



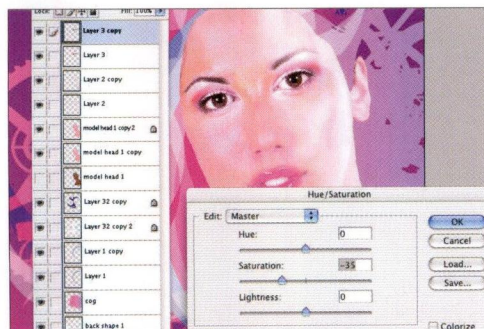
19: Reveal the eyes

Using 'Image', 'Adjustments', 'Auto Contrast', it's possible to bring a bit more contrast into the eye area. Using a decent eraser with a nice feathered edge, slowly erase around the eyes so it looks like the above picture. Try your best not to delete the eyes!



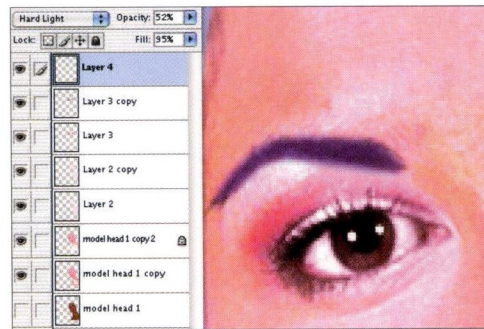
20: Keep it natural

Set the 'Color Balance' for this new layer to Shadows: '0', '0', '-27', Midtones: '-38', '0', '-55' and Highlights to '0', '+38', '-37'. As you can see from the screenshot above, this tones the skin down a bit, making it more natural-looking and less saturated.



21: Softly does it

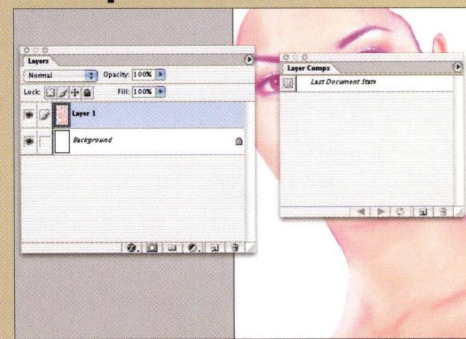
Duplicate the layer and apply a 'Gaussian blur' as before with a pixel radius of '2.1'. Now set the Blending mode to 'Overlay' and the Opacity to '50%'. Open the 'Hue/Saturation' dialog box, set the Saturation to '-35' and click 'OK'.



22: Dark eyebrows

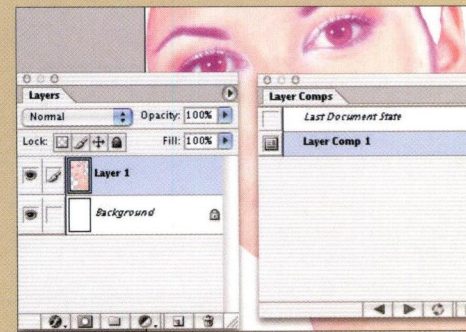
Create a new layer at the top of the 'Layers' palette, zoom in to the eyes and use the 'Pen' tool to draw around each eyebrow. Turn these paths into a selection. Feather this selection by around 1 pixel and fill the selections with dark purple, set to 'Hardlight' and the Opacity to around '52%'.

The all new Layer Comps feature



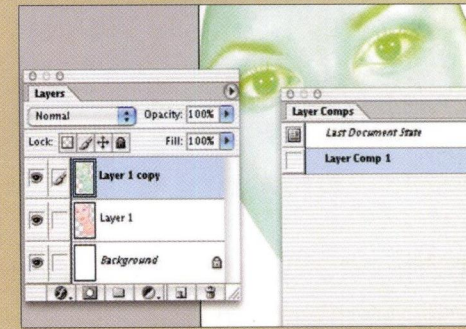
Begin the Comp

Go to 'Window', 'Layer Comps' to bring up this new feature in Photoshop CS. Using Layer Comps helps you take a snapshot of the present state of your image's layers. You can then revert back to it at a later date to check or change your image.



Create a new Comp

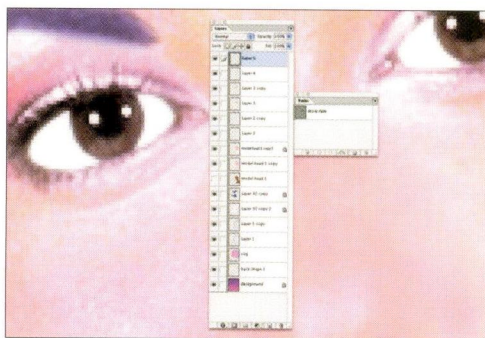
Now click the 'Create New Layer Comp' button on the 'Layer Comps' palette - a new dialog box will open with more options. Choose the ones you want and give the Comp a name. Add some more layers or change your image as you would do normally.



Back to where you started

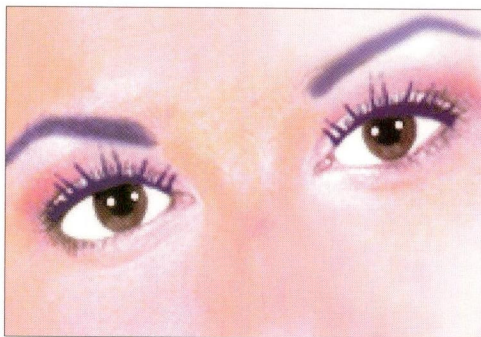
To get back to the previous state you saved your Comp at, click the arrows at the bottom of the 'Layer Comps' palette. Your 'Images' layers return to their previous state. You can create numerous Comps and flick through them by clicking the arrows. See page 40 for more on 'Layer Comps'.

CREATE STRIKING IMAGERY



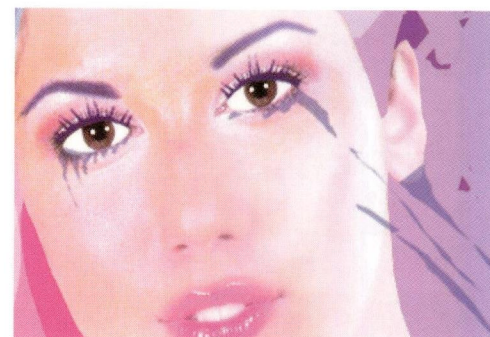
23: See the whites of the eyes

Eyes are generally the focus point of an image, so it's a good idea to make them as clear as possible. Create a new layer, zoom in to the eye area and create a new path around the whites of the model's eyes. Turn this into a selection, feather it by around 1 pixel and fill with white.



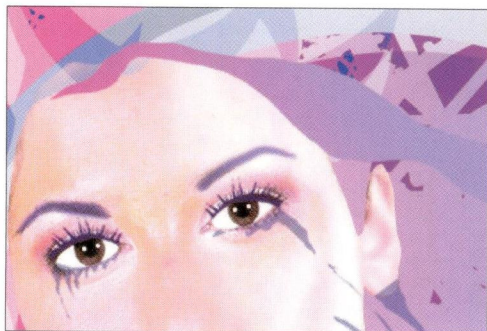
24: Fluttering eyelashes

Still staying with the eyes, select the 'Pen' tool and draw some accentuated eyelashes. Fill them with a dark purple. Experiment with this – you may want to make them longer and surreal. Again, do this on a new layer just in case it all goes wrong.



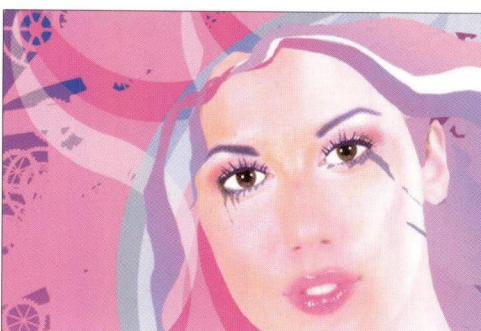
25: Teardrops

Create a new layer and use the 'Lasso' tool to create some streaky, tear-like shapes coming from the eyes. Fill them with black and then set the Blending mode to 'Hardlight' and the Opacity for this layer to around 35%. This should give the shapes a more translucent look.



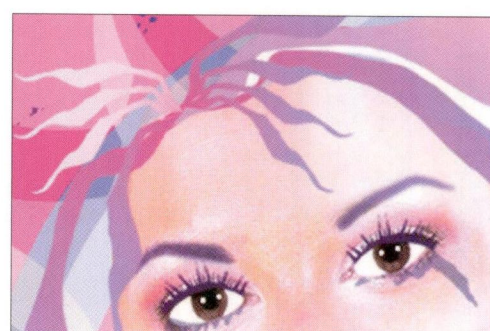
26: Wavy hair

Use the 'Pen' tool to create a new path and use the 'Gradient' tool to fill it. Create a similar shape to the one above. This will represent a strand of the model's hair. Play around with the 'Color Picker' and choose purple and magenta-type colours to fill in the selection.



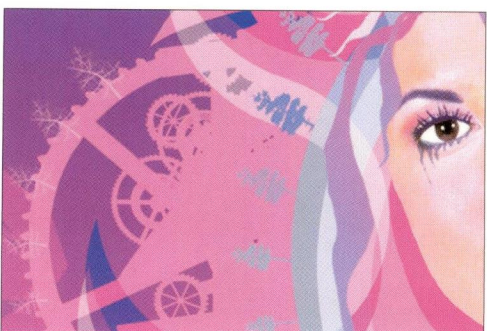
27: Even wavier hair

Repeat the previous step and then fill the selections with different colours, but remember to keep within the same overall colour palette. Flip some of them so that it starts to look like the above image and begins to represent the model's wavy locks.



28: Wispy fringe

We can now make some smaller shapes and repeat several times to give the impression of the model having a wispy fringe. You may want to experiment here and make the shapes different. Doing this may make the hair slightly more natural and less rigid and graphic.



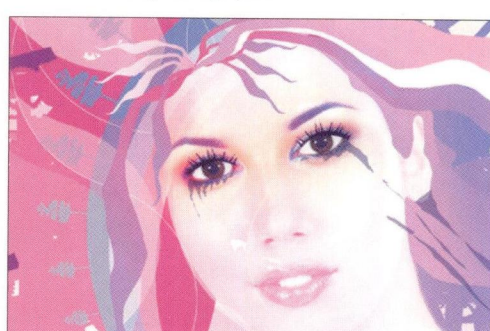
29: Trees

To make the illustration slightly more interesting and surreal, use the 'Pen' tool to create a tree and fill it with a colour similar to one of the blue arc shapes we created earlier. Now go to 'Edit', 'Transform', 'Rotate' so that it sits like the above image, and repeat this step several times.



30: Birds

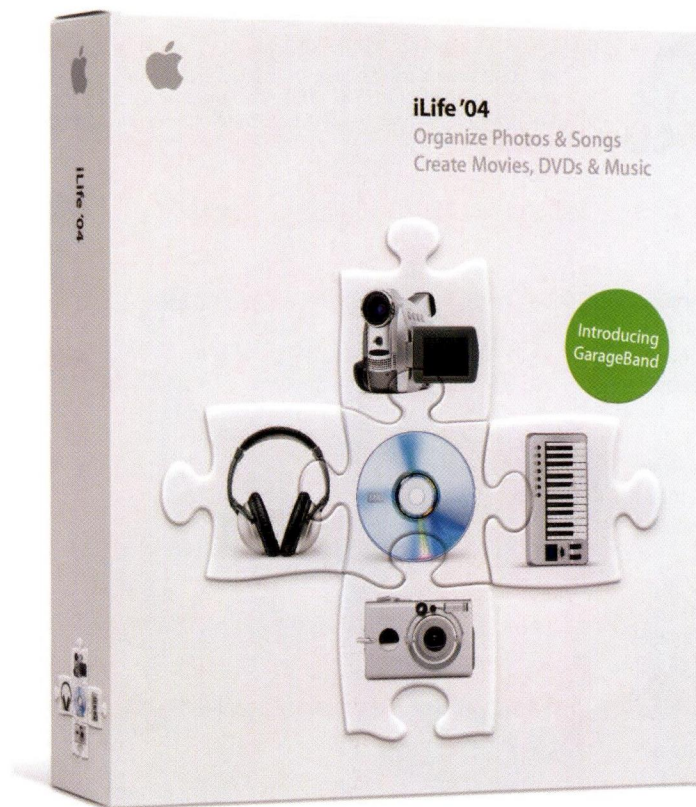
You can't have trees without a few birds, so add a few birdy shapes coming from the trees and make them of varying sizes. If you make the ones near the trees smaller than the ones further away, it will give the impression that they are flying towards the viewer.



31: Final touch-ups

Go to 'Layer', 'Flatten image' and add a few final touches by using 'Color Balance' and making areas on the face paler. Because the image has been flattened, any colour changes will be applied to everything. You may even want to try using 'Hue/Saturation' to change the overall colour of the image.

Live the iLife.



iLife '04 – Organise photos and songs. Create movies, DVDs and music.

Introducing iLife '04

Just as Microsoft Office has the tools you need to create a report, a budget or a presentation, iLife offers all of the tools you need for your work outside the office. When you're ready to kick back and create something spectacular, there's no better resource than iLife.

With GarageBand, iTunes, iPhoto, iMovie and iDVD you have five superb tools in your creative hands. Individually, they're peerless. And as a matched set, iLife has no equal, providing a suite of tightly integrated tools that work together seamlessly and place no limits on your talent or creativity. Consider: Using GarageBand, you create a new song (and make it sound as if you've been doing it all your life). Saved, your song automatically appears in iTunes. Where you can easily access it when you need music to accompany your iPhoto slide shows, to underscore the action in your iMovie projects or to play behind the titles of your latest iDVD project. Tightly integrated tools you already know how to use. That's iLife.

John Lewis – All under one roof

John Lewis department stores stock the complete range of Apple products including the brand new and faster iBook, iMac, PowerBook and Power

Mac G5 series. You'll also find a huge choice of software, monitors, compatible printers, scanners and other accessories.

Peace of mind

In addition to the quality and value that's part of the package when you buy at John Lewis, a free two-year guarantee is included too.¹

Knowledgeable service

Customers return to John Lewis time and time again because they know the sales assistants are fully trained by Apple. This means that you, the customer, can rest assured that you will get the best product to suit your needs.

Buying made easy

Buying Apple equipment from John Lewis is one thing. But the story doesn't end there. Not only will your Apple be delivered free but installation professionals can help you set up your computer for a small charge. All in all, John Lewis offers a service that is designed to make buying and using your Apple easier than ever.

Want to know more? Visit your nearest John Lewis.



iLife '04 System Requirements

Mac PowerPC, G3, G4 or G5 • 600MHz or faster, G4 or faster for GarageBand • 733MHz G4 or faster for iDVD • 256 MB RAM • Mac OS X v.10.2.6 or later • 4.3 GB disk space

John Lewis
www.johnlewis.com



¹See in store for details.

COMPOSITING WITH PHOTOSHOP

Photoshop is the ideal application for creating composites. Yet to many, avoiding the 'primary school cut-out' look remains a challenge



ON THE CD
bfly1-4.jpg
eva1.tif
Flying flat.jpg
green fields1-2.jpg
sky1-2.jpg

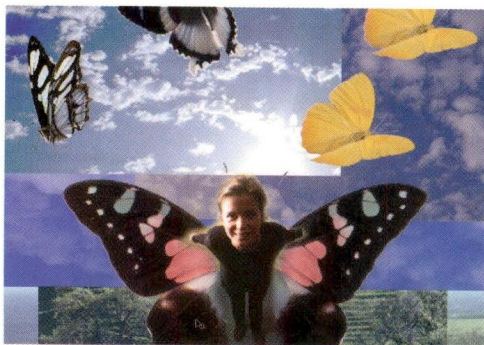
From the moment you install Photoshop, you can start to find your way around it and even be somewhat creative. It's no wonder therefore, that many users tend to abide by skills acquired early on, rarely feeling the need to expand their knowledge.

It's only when emergencies arise that you frantically reach for the manual. Like when your fourth attempt at creating a composite still produces a flat print, with no sense of real perspective or depth.

This is where our tutorial comes in. Here, leading digital artist Hannah Gal (www.hannahgal.co.uk) shows us the techniques she uses to composite images together to create striking and original pieces of digital artwork. You can discover the tricks and techniques she employs over the course of the next four pages.

The image in question was originally created for a solo London show, but has since been selected by a publisher as the front cover for a Photoshop book, so Hannah felt that it necessitated a second look and a revamp. We're going to take you through the creation of a complex composite with over 100 components, but don't worry if you're not used to working with multi-layered images, because we've supplied plenty of advice on better layer access and managing a large number of elements.

We'll also be using third party tools to add new and improved functionality to our workflow. These are Extensis's irreplaceable Intellihance Pro and AlienSkin's popular EyeCandy, as well as the little-known but well deserving Rough Pastels from Photoshop itself. ■



■ Here's our starting point, essentially just a collection of different images layered into one Photoshop document...



■ ...and here's the finished result, which we've created by using various Photoshop filters and third party plug-ins, and merging layers to create a striking piece of artwork

WEBRESOURCES

There are many tips-and-tricks sites for Photoshop. Even ones that appear amateurish can surprise with a useful tool, so do take the time to browse through the following links:
<http://members.aol.com/azpixels2/projects.html>
www.graphic-design.com/Photoshop/index.html
www.webreference.com/graphics/column32/6.html
www.apple.com/creative/resources/ttphotoshop
<http://hem.passagen.se/stefwest/pstrix.html>
www.adobeevangelists.com/photoshop

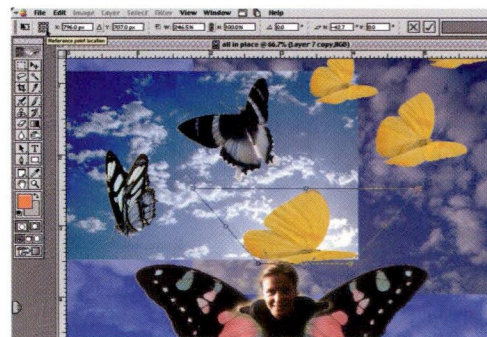
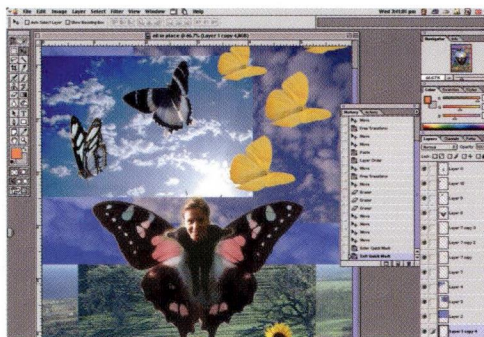
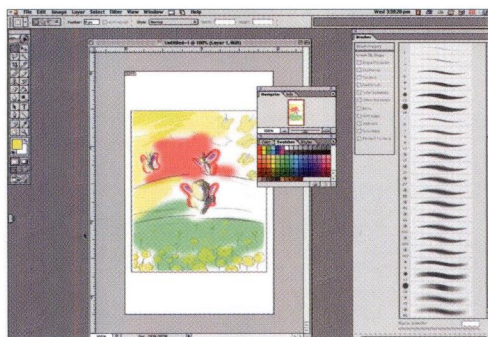
YOURGUIDE

HANNAH GAL has an impressive list of happy customers to her name, including Adobe, Apple, Sony, MTV, CNN and 10 Downing Street. Recent achievements include illustrating Siemens's new worldwide campaign, New Yorker, Whitechapel, a major JVC campaign and more. *Breathe*, her multi award-winning Adobe commissioned film, was the subject of an MTV documentary and got a Hollywood studio nod of approval. Hannah's acclaimed documentary was accepted by the British Film Council and enjoyed TV screenings.



Step-by-step: start work on your image

Take the first steps towards creating your own digital artwork



1: Plan ahead

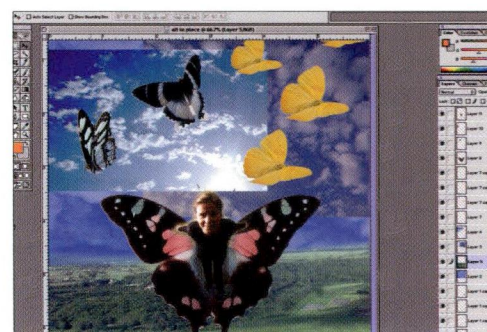
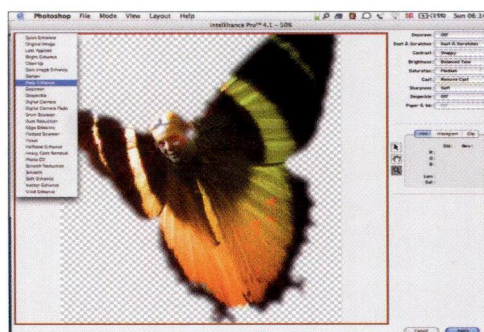
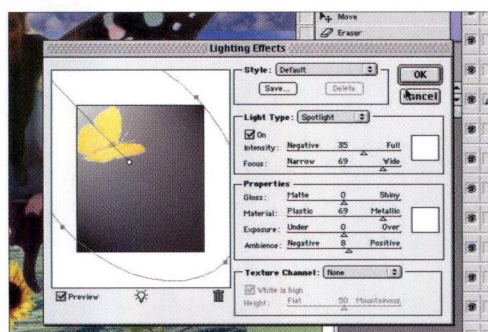
Regardless of the composite complexity, plan ahead. A graphics tablet is a great tool for creating a draft. With Photoshop's 'Pen', 'Pencil' or a simple brush, loosely outline the composition. Mark where different elements are going to be positioned, 'Save for Web' and use this for reference.

2: Mix the ingredients

In line with the original plan, open a new Photoshop file and place all the images from the CD. Do some very basic cleaning up by removing unwanted backgrounds and copy and paste layers to create the basis for the composite. Keep different elements as separate layers for greater control and flexibility.

3: Make it real

For this image, we scanned in images shot on 35mm film and imported pictures from other sources. In a convincing composite, all subjects look like a natural part of the scene. You will achieve such harmony by meticulously taking key aspects like perspective and lighting into account.



4: A single light source

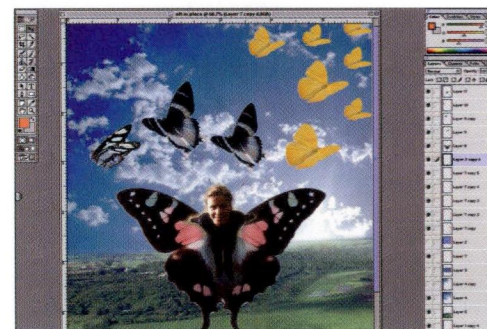
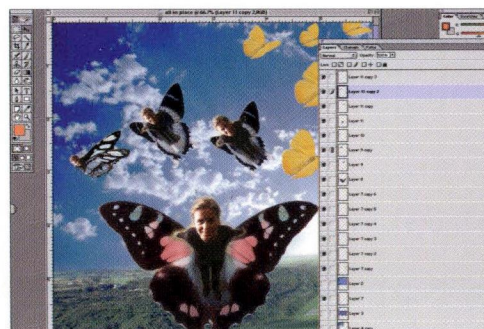
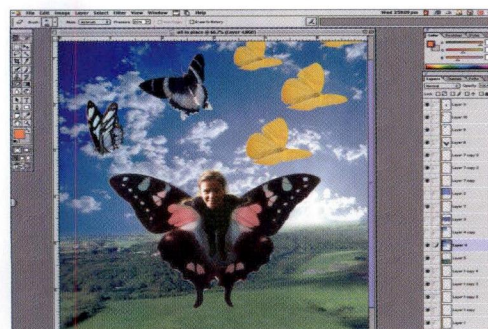
To ensure subjects look like they're part of the same scene, they must share the same light conditions. Photoshop's own 'Lighting Effects' facility (found under 'Filter', 'Render') is a good starting point for matching light properties. Select a layer and simulate the 45 degrees original light setup as shown.

5: Enhance with plug-ins

Extensis's Intellihance Pro (www.extensis.com) is a must-have plug-in. Although presented as the quick fix for bad photos, it's great for enhancing any given image, whatever its quality. With its one-step presets for adjusting sharpness, colour balance and saturation, it's a winner.

6: Green fields

Now we'll start work on the 'Green fields' images imported earlier. Remove any unwanted elements that might prove distracting and adjust the levels and colour to create the same look for all. Bring the two images together to create the lower third part of the composite.



7: The skies have it

Originally we had three different images of sky as candidates, but because each one has elements to enhance the larger picture, we decided to keep them all. To create the impression of a single source, match the colour balance and levels. Using the 'Clone' tool, lightly blend the clouds into the sky.

8: Linking layers together

The girl's body and wings share the same angle properties, so it's worth linking into pairs before applying major changes. Many users find Merge and Link options confusing. The most important point is that once merged, layers become one and cannot be undone, while linked layers can be separated.

9: The right perspective

Use Photoshop's 'Free Transform' feature to roughly adjust all the layers to the main subject's wide angle. Scale and apply 'Perspective' to the layers, taking advantage of the numerical control for reference and accuracy. The ability to apply several transform effects in one go is a great creativity booster.

COMPOSITING WITH PHOTOSHOP

Refining the artwork you have created

With all the elements loosely in place, it's time for a spot of major refinement. Nudge subjects into their final position, adjust the colour for a harmonious look, saturate the sky and fields, and refine perspective and scale

Transformation

To repeat a transformation and save a great deal of time, apply 'Edit', 'Transform', 'Again'. Alternatively, you can duplicate a transformation by holding down 'Option' and selecting the 'Transform' command

The skies have it

Enhance the fantasy feel by adding surrealism to heavily affect the sky's colour and contrast. 'Hue/Saturation', gives control over individual colour, or you can select 'Master' to affect all in one

Layers, layers and more layers

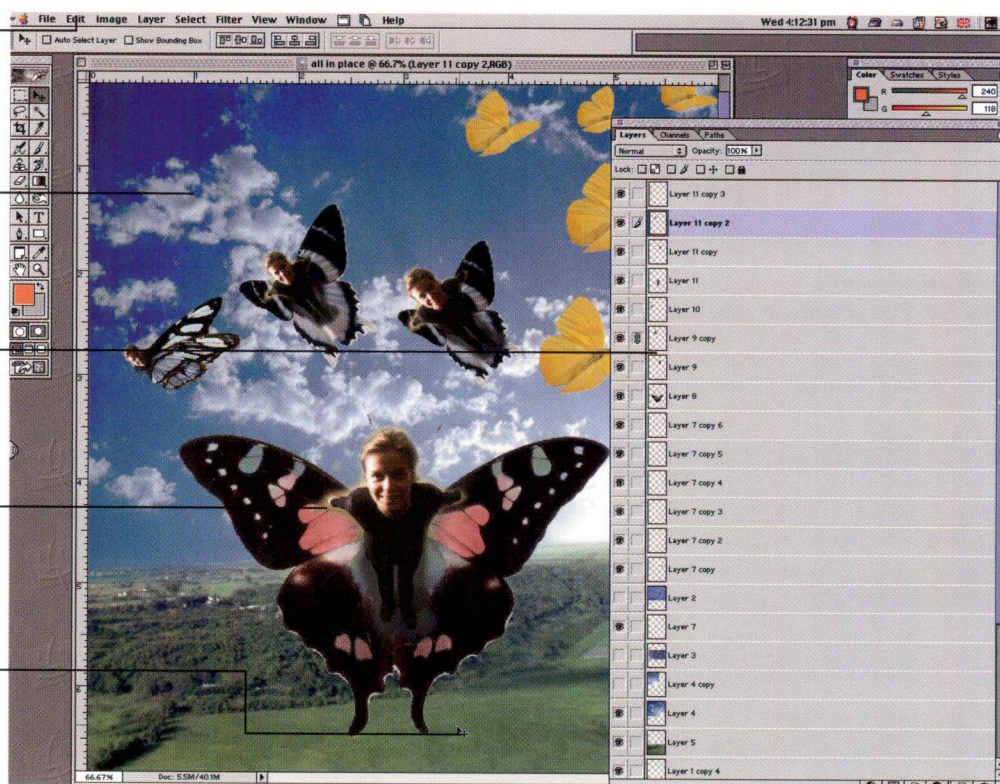
With butterflies, wings and a multitude of flowers, the number of layers is increasing fast. In total there will be over 100 layers to manipulate, so shortcuts and fast navigation tips will come in handy

A softer edge

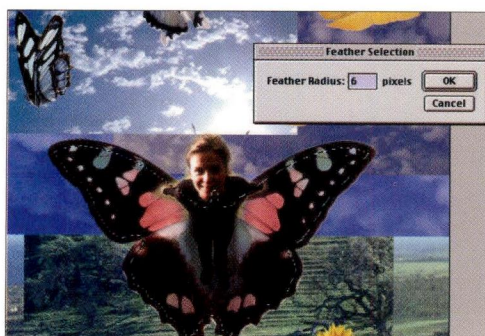
We used the 'Feather' feature to give our subjects softer edges. We loaded the selection, contracted and inversed it, and experimented with the feather level to get just the right level of softness

Fast layer navigation

With the 'Move' tool selected, place your cursor over an element in a layer to activate it. Control-click, and a pop-up list containing all the layers in the vicinity appears. Select the layer you want



Continued...



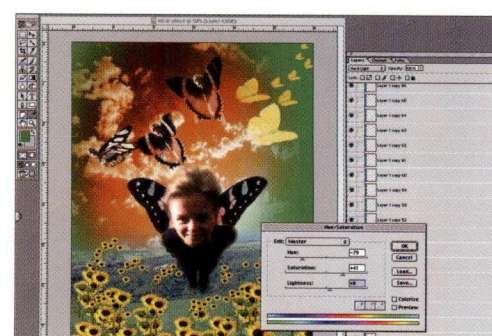
10: The Feather effect

For a more unified look, create a soft-edges effect around all your subjects. Go to 'Select' and hit 'Load Selection'. Inverse the selection and specify the 'Feather' level. Cut the selection to reveal a softer contour and repeat for other objects, varying the 'Feather' level in accordance with their size.



11: Accentuate the positive

Our subject was photographed with a wide-angle lens. We want to accentuate this effect for greater impact without using distorting filters. Photoshop's 'Free Transform' with its 'Perspective', 'Scale' and 'Distort' features, is perfect. The effect brings the subject to the front, creating impact.



12: Atmospheric skies

The skies help to set the atmosphere of the piece. Highly saturated with an unusual tint, they inject a hint of fantasy. We experimented with the 'Sky' layer in the 'Hue/Saturation' dialog, until the desired effect was achieved. We worked with the master setting to affect all colours simultaneously.

CREATIVEPRIMER

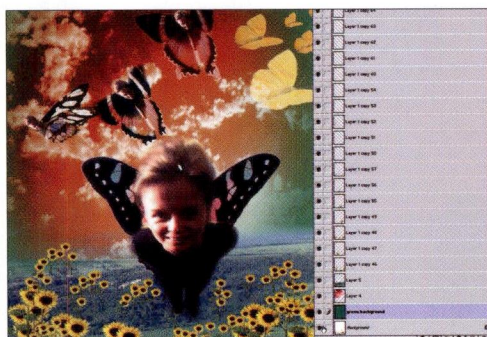
Fade away

The 'Fade' command is a useful but little-used way to change the Opacity and Blending mode of any filter. Applying the 'Fade' effect is much like applying the filter effect on a separate layer and then using the layer Opacity and Blending mode controls for refinement. You apply a filter, painting tool or colour adjustment to a selection or image. Choose 'Edit', 'Fade'. Preview the effect and, with the slider, adjust the Opacity. It doesn't have to end here, though. You can now choose a Blending mode (from the 'Mode' menu) and experiment away.



WEBRESOURCES

Web dwellers can seriously indulge themselves when it comes to Photoshop. The single best site we'd recommended for keeping up with the times and your work inspirational is www.adobe.com. Visit the UK section for some local spirit and details of courses and events. Extensis has been developing Photoshop plug-ins for years and you can download demos of these products by visiting www.extensis.com



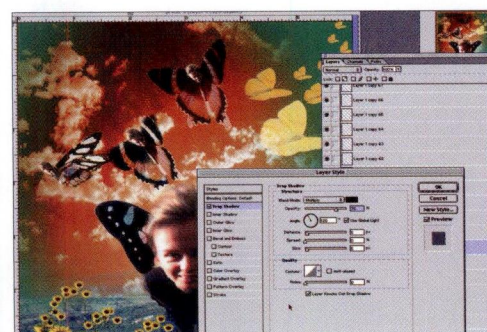
13: Blend away

Blending modes are a great creativity booster and the best way to use them is to experiment. After achieving the right saturation level, we added a dark green background layer and played with the various Blending modes on offer until we found an effect that clicked.



15: Fantasy green

The carpet of yellow flowers affects the colour balance in the composite and makes the green of the fields look out of place. The fields are still needed, but their colour needs to be muted. Here we're using the 'Color Balance' palette to add some cyan, and the 'Brightness/Contrast' dialog to reduce the latter.



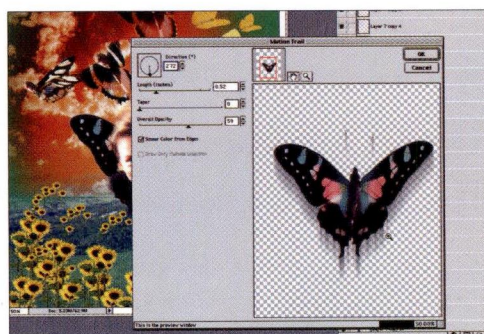
17: The shadows

Applying the same shadow to all the subjects was easily done within Photoshop. We double-clicked on a layer to open the 'Layers Style' palette and applied the desired level of 'Drop Shadow' to the object. We then dragged the effect onto other layers to apply it.



14: Not so mellow yellow

The carpet of flowers is a vital part of the scenery, adding colour and balancing the reddish skies. We wanted to retain control over each element, but positioning so many identical flowers is difficult. To simplify matters, we linked the flowers into three easy-to-spot clusters instead.



16: Poetry in motion

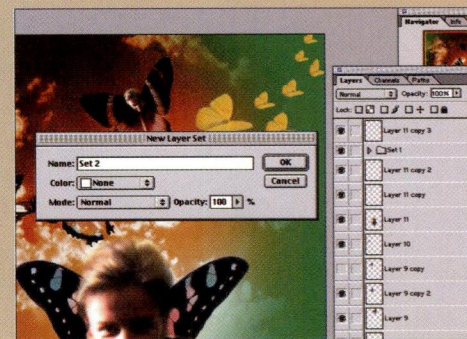
With the different subjects in mid flight, a motion effect was naturally called for. To achieve this, we used the 'Motion Trail' effect in Alien Skin's excellent EyeCandy plug-in (www.alienskin.com) in conjunction with Photoshop's own 'Motion Blur'.



18: Texturise the image

Another essential filter is the little-known 'Rough Pastels'. Part of Photoshop, it hides in the 'Artistic' sub-category of the 'Filters' menu and can instantly add texture to any surface, injecting a slightly artistic edge. We've taken it to extremes here to create the impression of a textured painting.

Layers and lighting



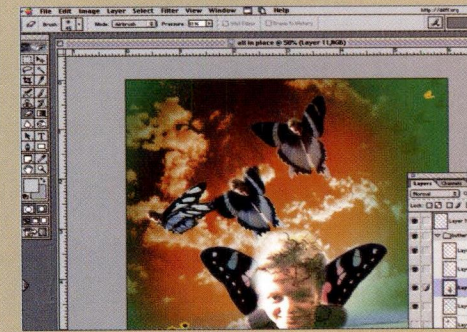
Organise layers

The 'Layers' palette can soon become cluttered when you work with multi-layer documents. In the same way you organise files into folders, you can group layers into sets. Click the 'Create a New Set' button in the 'Layers' palette, double-click the name of the layer set and rename it.



Lighting Effects texture

To apply light texture we could have used 'Lighting Effects' instead of 'Rough Pastels'. In the 'Lighting Effects' dialog box, the 'Texture Channel' lets you use a greyscale texture to reflect light off an image. You can use any channel in your image as a texture, or better still, create your own.



White is High

You copy and paste the texture image into a new alpha channel and in the 'Lighting Effects' dialog box. Choose a channel from the 'Texture Channel' menu, and select 'White is High' to raise the white parts of the channel from the surface, or 'Deselect' to raise the dark parts.



PHOTOSHOP CS POWER 50 TIPS

Photoshop offers so many editing possibilities, there's always some new trick waiting to be discovered. **Andy Stewart** reveals all

Few will disagree that Photoshop is the most powerful image-editing application on the planet. With such a wealth of features and tools on offer, digital creatives of all descriptions can enjoy an unrivalled amount of artistic freedom. However, this does mean that most users are only scratching the surface of what the mighty imaging app can do.

Although many people use Photoshop daily to create composites, touch up photos, illustrate and design Web sites, there's still a wealth of tools, shortcuts and sidesteps designed to speed up productivity that remain out of reach.

Unless you've read the entire Photoshop manual from cover to cover, it's more than likely that you're still unaware of some of the more advanced features. And even if you have diligently slogged your way through that weighty tome, there are a host of undocumented shortcuts that are only unearthed through serious experimentation and exploration.

But it's not all about saving time. Just as important are the alternative techniques that actually turn out better images. It's well known that Photoshop lets you complete tasks in a variety of ways, so it's logical that there's a method out there somewhere that's a better match for your way of working.

Over the following pages, you'll find the ultimate collection of Photoshop power tips, carefully crafted to maximise productivity and expand your creative horizons. Covering tools, filters, layers, adjustments and even eventual image destinations, there's enough advice here to turn a regular Joe Photoshop user into an imaging whizz-kid in no time at all ■



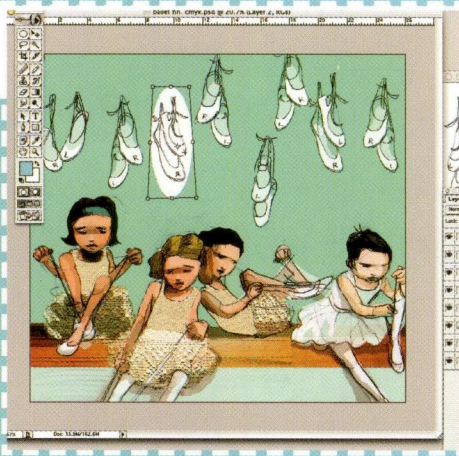
PROFESSIONAL TIP

1

ALEX GREEN
Freelance digital artist
www.folioart.co.uk

Copy objects to a new layer for editing

"I like to draw images on paper and then import them to ensure the lines vary. Often I'll alter drawn elements to maintain an accurate sense of perspective. When adjusting proportions, first use the 'Rectangular Marquee' tool to highlight a specific area and then move it to a new layer by selecting 'Layer', 'New', 'Layer via Cut'. Now use the 'Clone' tool to cover the old area on the layer below, leaving you free to manipulate the new layer by right-clicking inside the selection and selecting 'Free Transform'. Now you can adjust the object without worrying about the gap underneath".

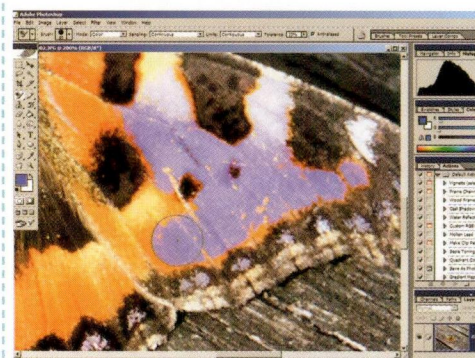


Alter perspective with pinpoint accuracy using the 'Clone' tool

7

Swap colours with the Color Replacement tool

In previous versions of Photoshop, replacing specific areas of colour with other hues was an arduous task. However, Adobe has included the 'Color Replacement' tool in Photoshop CS to make the process a whole lot easier. To use it, click and hold the 'Healing Brush' on the toolbar to expand the toolset, and then click the paintbrush and eye icon. Next, use the 'Color' palette to choose a replacement colour, and begin to paint over the image areas you wish to change. The tool will swap out the offending colours, automatically finding edges and leaving other image areas untouched. Quick, easy and painless.



The 'Color Replacement' tool is a godsend for fickle types who want to be able to see lots of different colour combinations

2

Brush control

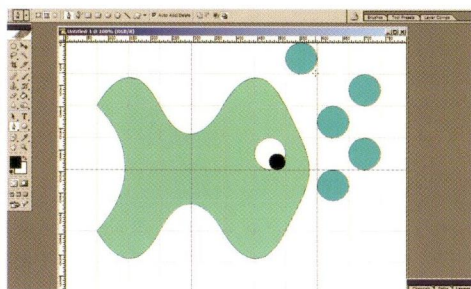
Illustrators have it easy in Photoshop. Particularly handy are the many ways to adjust brush settings without having to

flick through drop-down menus. To get the 'Brush' palette up fast, simply right-click on an image while using the 'Brush' tool and you will be able to alter brush sizes and hardness. For real speed, change brush sizes by hitting the [or] brackets. The brackets can also be handy if you want to alter the softness of your brush. To do this, hold down 'Shift' and use the brackets to make the brush harder or softer. Being able to adjust your brush with ease will make you much more likely to bother trying to perfect the image.

4

Pen vectors

Vector illustration in Photoshop is now a real possibility thanks to the 'Pen' and 'Shape' tools. Using a combination of these tools and editing the settings in the Options bar, you can build up intricate vector designs by overlapping, subtracting and excluding shape areas as necessary. If you want to quickly turn parts of a rastered image into a vector shape, select the 'Pen' tool, choose 'Freeform Pen' tool from the Options bar, tick 'Magnetic' and loosely trace the image outline.



As well as being excellent for photo manipulation, Photoshop is also a great little program for vector work

8

Freeing the eyedropper

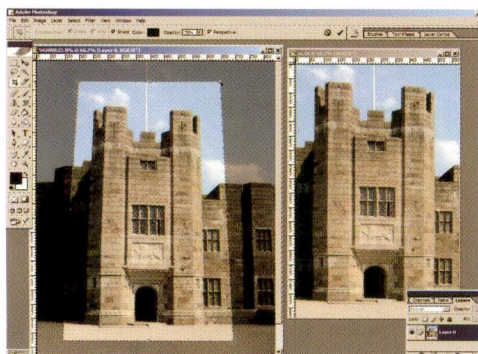
Using the 'Eyedropper' tool to select a colour from within an open image is something most people can manage, but few people know that you can now use the tool to pick a colour from any part of your current display, including the desktop space and other program windows. To free the Eyedropper from its Photoshop chains, click inside an open Photoshop image, and keep the mouse button held down (you don't even have to select the Eyedropper). Now move your mouse outside of the image and onto any other part of the screen you wish.

3

Cropping out distortion

The 'Crop' tool is invaluable for reframing images, but few people

know that you can also use this handy device when it comes to correcting any perspective problems your pictures might be suffering from. To do this, grab the 'Crop' tool from the toolbar and make a selection as normal. Then, tick the 'Perspective' box on the Options bar and drag the corner Crop markers until the sides match up with the image's edges. Double-click inside the crop when you're ready and the image will magically correct itself.



The 'Crop' tool is perfect when it comes to reframing and perspective problems, and it's a lot more versatile than most people realise

5

Add text and audio notes to images

When working on a large graphics project, it's common to spend a couple of days putting an image together. If you find you often stop midway through a task, make use of Photoshop CS's handy 'Notes' tool to record text or audio on top of an image so you don't forget anything vital.

6

Blending strokes

Layer Blending modes give you a lot of control when mixing layers, but what if you want to adjust the way a single stroke blends with the underlying image, without affecting the rest of the layer? Simple - just click 'Edit', 'Fade' or hold 'Shift, Ctrl+F'. You can now adjust the options of your last stroke without the rest of the layer.

9

Quick masking

When selecting various portions of an image, instead of using the 'Lasso' tools you'll often find it much quicker and more precise to use a Quick Mask. Hit 'Q', select the 'Paint Brush' tool and simply draw a red mask over the part of the image that you want to keep. Hit 'Q' again and your selection is made, and ready to be treated like any other.

10

On the grid

For drawing objects with precision, it's always useful to bring up the Photoshop Grid, which you can set so that the 'Pen tool' automatically snaps to grid points. To show the grid, click on 'View', 'Show', 'Grid' and then select 'View', 'Snap To', 'Grid' to make the Pen lock onto the points. Using this method you can quickly make symmetrical shapes and precise curves.

ADJUSTMENTS

T



T

11

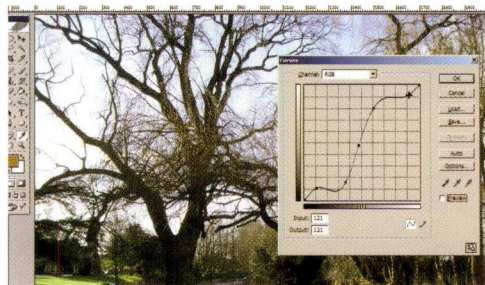
Customise the Curves palette

Most people set their monitors to a high resolution for Photoshop, allowing images to appear clearly. However, a nasty side effect is that the 'Curves' adjustment palette is too small to edit with any precision. Correct this by clicking on the small icon in the bottom-right corner of the palette. In addition, add more precise lines by Alt-clicking the adjustment screen.

12

Adding colour spots to curves

When editing colours using the 'Curves' dialog, it's tough to place colour spots on the adjustment line. To improve your accuracy click 'Image', 'Adjustments', 'Curves' and then position your cursor over the colour to edit. The pointer will become the Eyedropper, and if you Ctrl-click the colour beneath the pointer, it will be mapped onto the curve.



Being able to control the editing of curves can make all the difference if you're after a subtle shift in your colour spectrum

13

Auto Levels

If you don't always have time to tweak colour tones before printing digital photos, try this quick fix. Before hitting 'Ctrl+P', a quick press of 'Ctrl,Shift+L' will run 'Auto Levels', which will instantly get rid of that common digicam haze and improve colour clarity no end.

14

Quick rotate with the Measure tool

Rotating an image can be a bit of a guessing game. To visually define an angle of rotation, use the 'Measure' tool by clicking and holding on the Eyedropper and picking the ruler icon. Drag out a line you want to rotate to, and then hit 'Image', 'Rotate Canvas', 'Arbitrary'. Hit 'OK' and the image edge will be matched to the 'Measure' tool line.

15

Use Feathering to soften edges

When making freehand selections with the 'Marquee', 'Lasso' or 'Magic Wand' tools, you'll often end up with a jaggy line of marching ants which can make moving and deleting sections an unsightly mess. Get around this by adding a 'Feather' adjustment to the selection - simply set the Feathering value on the Options bar to around '20px'.

16

Reset palettes fast

Photoshop's Preview feature comes in handy when using adjustment palettes to change image colour properties, giving you live feedback on the changes you are making. Sadly, it's all too easy to get in a muddle. But instead of closing the adjustment dialog and trying again, why not Alt-click the 'Cancel' button? This resets the adjustment window to its original settings.

17

Bigger canvas

Adjusting image dimensions in the 'Canvas Size' dialog can be unwieldy, but you can do the same job with the 'Crop' tool. Start by dragging the bottom-right tab of the image window so that grey background is visible, and then create a selection with the 'Crop' tool. Finally, drag the bounding tabs to the size you want. Click the tick on the Options bar and the canvas will expand.

18

Use Variations to quickly select an adjusted image type

It's no secret that the most common image adjustments in Photoshop deal with tweaking attributes like Saturation, Midtones and Highlights. But instead of using the arbitrary sliders on the 'Hue/Saturation' palette, try a more visual approach by clicking 'Image', 'Adjustments', 'Variations'. Using the subtly adjusted thumbnails, you can fix all those pesky problem images in no time.



Being able to see the outcome of a tweak is key to creating great images, and Photoshop has many ways to make this easier for you

19

Creating custom Transform keyboard shortcuts

Real Photoshop speed demons make heavy use of the default keyboard shortcuts to execute common tasks, but Photoshop CS opens the field up considerably by allowing you to assign your own shortcuts to pretty much any procedure. For example, to make a shortcut for rotating an image 90 degrees counter-clockwise (a common task for photographers), click 'Edit', 'Keyboard Shortcuts' and select 'Application Menus' in the 'Shortcuts For' field. Expand the 'Edit' menu, click on 'Rotate', press 'Ctrl' and your chosen shortcut key, and it's complete.

PROFESSIONAL TIP

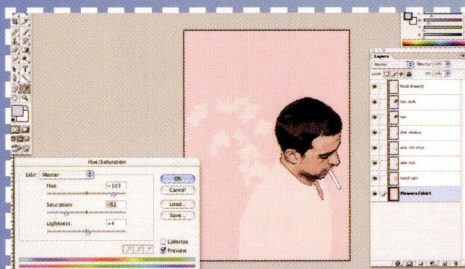
20

MARK DICKSON, aka BEEFY
Freelance digital illustrator
www.beefyillustrations.com

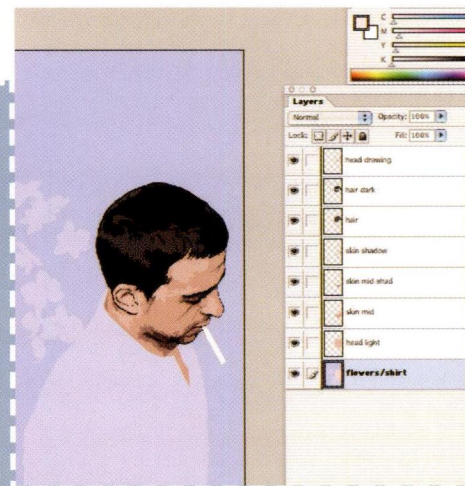
Adjusting image colours

"Sending the first draft, or 'rough', of an image to a client usually gives them time to look over the artwork and request any necessary changes. A great tool to use for adjusting and correcting colour elements is the 'Hue/Saturation' option. If a client has requested that the blue in an image be changed to a light pink so that it complements the other elements on their page, choose the layer you want to make changes to and click 'Select', 'Color Range'. Use the 'Eyedropper' tool to select the areas of colour to be changed, holding 'Shift' to make multiple selections. Move the Fuzziness slider to select larger ranges of colour on this layer, and then click 'OK'. Now the area is selected, go to

'Image', 'Adjustments', 'Hue/Saturation' and move the three sliders to create the new colour. Click 'OK' and the colour is amended, without having to re-draw or use the Magic Wand."



Adjusting the hue and saturation of your images can make a dramatic difference to the final look of the piece



Swapping one colour for another is critical if you're creating to a brief, because your clients may want to see different variations

FILTERS



21

Gathering dark storm clouds

Photoshop's clever Clouds filter is a great device for transforming random areas of highlight and shadows into exciting new textures that you can use to great effect in your images. To get the effect of more aggressive clouds with higher points of contrast, you can use this simple but sneaky trick. All you have to do is hold down the 'Alt' key and then select 'Filter', 'Render', 'Clouds'.

22

Adding texture with Bas relief

No matter how many megapixels your digicam sports, it's sometimes necessary to bump up the detail and texture in a shot to make it stand out. A quick way to do it is to open the image, duplicate the layer, and then run a Bas Relief filter ('Filter', 'Sketch', 'Bas Relief'). Use a Detail level of around '12', Smoothness of '3' and 'Light set to Bottom', and you can then use the 'Layers' palette to change the filter's Blend mode to 'Overlay'. Set the Opacity to about '30%', and the textures should leap off the page.



Creating artwork with different levels of detail can be a great way to make your finished images stand out from the crowd

23

Cutting out with the Extract filter

Photoshop's 'Lasso', 'Marquee', 'Magic Wand' and 'Pen' tools offer a variety of methods for selecting image objects to be cut out, but another useful and quick way is to use the Extract filter. Select 'Filter', 'Extract' to open the control window, click the 'Highlighter' tool and check 'Smart Highlighting' on the right-hand options. Draw around the edge of the object, use the 'Fill' tool to fill in the area you want to keep, hit 'OK', and hey presto – the object is removed.

24

Simulating a smooth lens blur

Adding a depth-of-field effect in Photoshop used to mean applying a simple Gaussian blur that would distort the background pixels. With Photoshop CS on the scene though, you can get much more professional results by using the new Lens Blur filter. After making a quick selection of the background area, click 'Filter', 'Blur', 'Lens Blur' and use the control sliders to adjust the amount of the effect you require. Doing it this way will ensure that you get a more realistic and controlled effect – almost as if you had created the textured look as you took the photograph.

PROFESSIONAL TIP

30

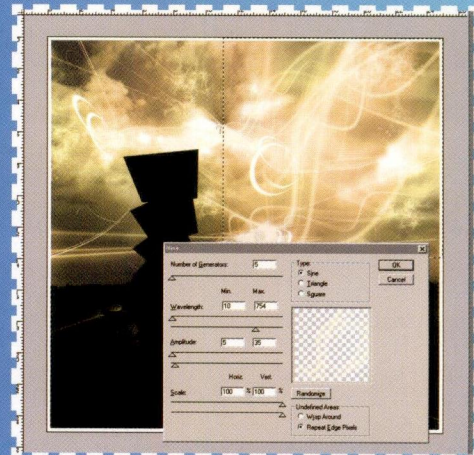
PER GUSTAFSON
Freelance digital designer
www.modernstyle.nu

Lightning effects

"Photoshop's Wave filter is incredibly useful for creating 3D or 2D lightning effects. With a bit of practice you can take tight control, so you achieve the exact shapes and waves that your illustration requires.

"To create lightning quickly, make a new layer and draw some streaks on it in rough positions. Then click 'Filter', 'Distort', 'Wave' and adjust the Wavelength and Amplitude sliders to create jagged forks in the streaks.

"However, don't over-use the filter because it can be easy to spot manufactured image elements like this. You can hide them by using the filter on several layers, while playing with the opacity and placement each time to overlap and blend the effects. For added control, try combining the results with the 'Transform' tool or Shear filter to adjust the position and perspective of lightning bolts."



If you want to give your images more depth and texture, the Wave filter can be a handy effect to apply

25

Smooth selections with Median

Looking for a smoother selection outline when using the 'Lasso' tool? Get more control by using the Median filter to round off unsightly edges. To do this, make your selection, hit 'Q' to enter Quick Mask mode and then select 'Filter', 'Noise', 'Median' and use the Radius slider to smooth things out. Hit 'OK' followed by 'Q' to apply the settings.

26

Creating seamless patterns with Pattern Maker

It's now possible to create your own texture stamps quickly, with the Photoshop CS Pattern Maker. To create a pebble pattern for instance, open an image of pebbles and click 'Filter', 'Pattern Maker'. Drag a selection around the pebbles in the Preview window and hit 'Generate'. Finally, increase the Width and Height values in the right-hand panel to around 1,000, and click 'Generate Again' to render a seamless texture.

27

Making quick selections with Color Range

Cutting out intricate image objects can be extremely time-consuming and arduous with the 'Marquee' or 'Lasso' tools. However, if the object's colours contrast strongly with the background, you can save yourself a bit of time by using the Color Range filter to make your selection for you. Click on 'Select', 'Color Range' to bring up the controls, and then hold 'Shift' and click on a few areas of the object to add all the colours to the selection. All you have to do now is hit the 'OK' button and your object will be selected with no more effort from you.

28

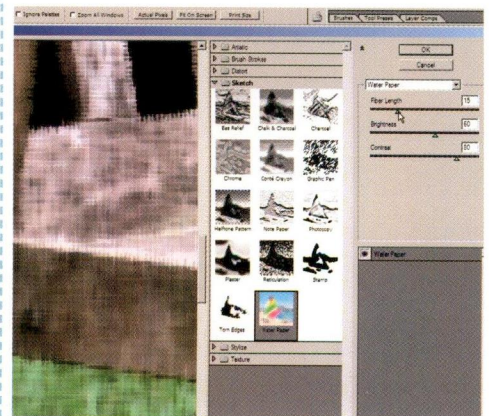
Applying filters multiple times

When applying a filter to an image, it's often necessary to repeat the filter on numerous layers. Instead of digging through the 'Filter' menu, selecting the required effect and re-adjusting the sliders each time, just hit 'Ctrl+F' to apply the filter you last used, with the same settings intact.

29

The Filter Gallery

Thanks to pressure from Photoshop users, Adobe has added a great new feature to the 'Filters' menu that can make choosing the right filter much quicker. Called the 'Filter Gallery' ('Filters', 'Filters Gallery'), it displays a window with thumbnail previews of the effect each filter will have on your image. Whenever you're stuck for what filter to apply, take it for a spin and save yourself having to play the guessing game.



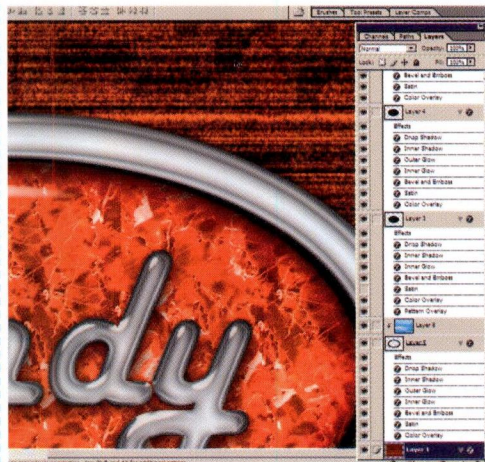
The Filter Gallery is perfect if you can picture an effect but have no idea whatsoever how you might go about creating it

LAYERS

31

Find it fast

Complex images are often made up of stacks of layers, which can make it tricky to locate specific layers when you need to find a particular element. Instead of scrabbling through the layer stack manually though, you can just grab the 'Move' tool to find the layer quickly. Ensure that 'Auto Select Layer' is ticked in the Options bar, and then click on the object you want to locate. Photoshop will now automatically skip to the relevant layer.



The artwork you create is the most important thing, but organisation is key to smoothing your workflow and soothing your brow

32

Using Adjustment layers

Making adjustments to an image is ordinarily a destructive task, because standard colour edits such as 'Levels' or 'Curves' tweaks make permanent changes to the original image. That is, unless you use an Adjustment layer. To protect the original image, create an adjustment by clicking 'Layer', 'New Adjustment Layer'. All you have to do now is choose the type of edit you want from the list.

33

Separate out your Layer Styles

Layer Styles offer you a huge amount of control when you're applying graphical effects to an image, but did you know that you can assign these styles to layers all on their own? When you've added a Layer Style to an image layer, click 'Layer', 'Layer Style', 'Create Layer', and the style will be separated out and assigned to a new layer above the original. This gives you even more creative freedom – just don't get your layers and styles confused!

34

Drag and drop your effects

After spending ages tweaking the Layer Styles Properties window to create a stunning effect, the last thing you want to do is have to spend the same amount of time applying identical settings to a different layer. Instead, you can speed things up immensely by simply dragging and dropping the styles – exactly as you would a chunk of text – from one layer to another on the 'Layers' palette. Easy when you know how.

35

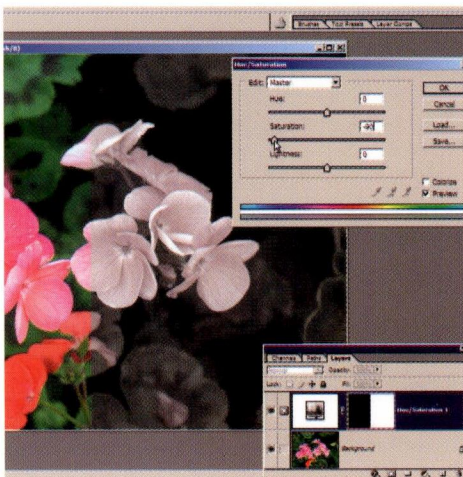
Aligning your layers perfectly

If you're having problems arranging a stack of layers so that their edges line up, you can try using the 'Alignment' commands to do it for you. The first thing to do is click on the layer you want the others to line up with, and then click on each layer you want to align. The next step is to click the chain icon on the 'Layers' palette and this will link them all together. Next, hit one of the Options bar alignment shortcuts, and all the layers should jump to attention and match up completely.

36

Controlled desaturating

To turn a colour photo into black-and-white, the thing to use is an Adjustment layer. Click on 'Layer', 'New Adjustment Layer', 'Hue/Saturation' to bring up the dialog, and then move the Saturation slider to the left. It's sometimes best not to go too far with this though, and using settings of about -90 will keep a little of the image's warmth. That way, it won't look unrealistically harsh.

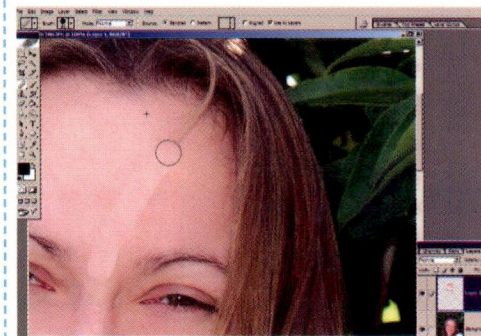


Use an Adjustment layer to create stylish black-and-white images

37

Retouch on a separate layer

Using retouching tools such as the 'Healing Brush', 'Clone Stamp', 'Smudge', 'Blur' and 'Sharpen' can be potentially damaging, so to protect the original image, create a new layer above it and in each tool's Options bar settings, pop a tick in 'Use All Layers'. The tools will then sample pixels from the image beneath, but only draw on the new layer.



Improving the way people look is another Photoshop talent

38

Unlocking the background

Open a file in Photoshop and you'll find that the background layer is normally locked against editing by default. This can be incredibly annoying when you want to do something simple, so get around it by double-clicking the image thumbnail in the 'Layers' palette, then simply clicking 'OK' when the 'New Layer' dialog window appears.

39

Save RAM by merging

When the 'Layers' palette becomes too big to handle, it can make organising your image a real pain. Even worse, it eats RAM like there's no tomorrow. Whenever possible, try to merge those layers that you're happy with, by linking them with the chain icon, and then selecting 'Layers', 'Merge Linked'.

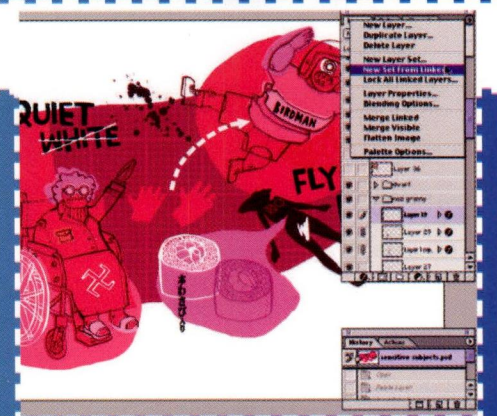
PROFESSIONAL TIP

40

TOBY LEIGH
Freelance graphic artist
www.theaoi.com

Creating layer sets

"When working with Photoshop layers, the most important thing you can do is keep them organised. Nothing is worse than having hundreds of layers and not knowing where to find a specific part of your illustration. First thing I always do is put specific areas of an illustration into separate folders or 'sets' within the 'Layers' palette. The first step is to link the layers you intend to group, so click in the boxes next to the eye icon to display the chain. Next, click on the little 'Options' arrow in the top right-hand corner of the 'Layers' palette and then select the 'New set from linked' command. That should do the trick."



Toby Leigh's work consists of bits and pieces on many different layers, and it's vital that he knows where to find each element



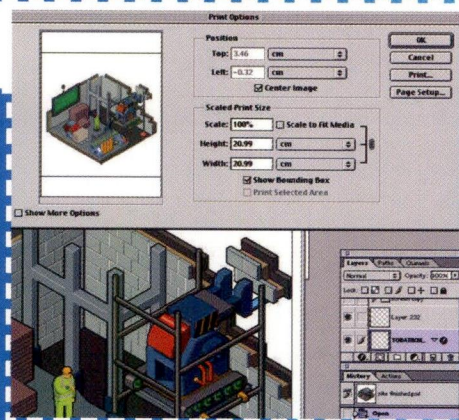
PROFESSIONAL TIP

41

TOBA TRON
Freelance digital artist
www.folioart.co.uk

Prepping images for print

"When creating an image for print there are several things you should get into the habit of doing. First, make sure that your image resolution is at 300dpi. If you are doing a job for commercial use you should set the mode to 'CMYK' ('Image', 'Mode', 'CMYK'). In the past I have done jobs in RGB and been disappointed because the colours have come out muddled. The range of colours in RGB is much greater, but they're designed to be seen on a screen or television. Always check the 'Print' options, too. They allow you to check how the image is going to fit on the page. If it's not fitting, go to 'File', 'Page Setup' and adjust accordingly."



Your work doesn't end when you finish creating an image - you also need to make sure your 'Print' options are correct

47

Web safe colours

During the construction of Web site elements in Photoshop, you may be tempted to only use Web safe colours in the belief that these are more compatible with browsers. This is unnecessary. Web safe colours originally gave designers a palette that could be faithfully reproduced by people browsing with a 256 colour screen. Today, almost everyone uses monitors capable of displaying millions of colours, making this safeguard totally obsolete. Ignore it.

48

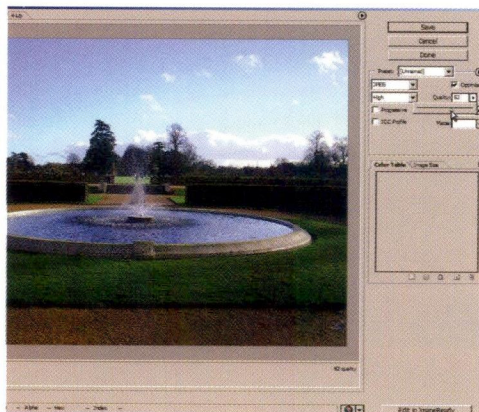
8-bit or 16-bit?

One of the new additions to Photoshop CS is the ability to work with images with a 16-bit colour depth. Images with 16-bit depth basically offer greater colour distinction, but the only problem is that they can be double the size of 8-bit image files. This can make running adjustments a bit of a slow process on older and less reliable machines. The good news is that when you convert an 8-bit image to 16-bit ('Image', 'Mode', '16 Bits/Channel') and begin to apply filters, blurs and gradients, you'll find that the difference is enormous. You may not notice the improvement so much on your monitor, but after adding a lot of effects and adjustments, the printed quality of the image will be much, much higher.

42

Save for Web

Although Photoshop gives you quality and compression options when you come to save an image file in the standard way, never underestimate the power of the 'Save for Web' tool to give you full control over the final image integrity. Click 'File', 'Save for Web' and then use the 'Quality' and 'Image Size' controls on the right to shrink the size of the file, while keeping a close eye on minimising visual compression artefacts in the handy Preview window to the left.



The Internet is a natural home for lots of digital artists, so 'Save for Web' is a vital Photoshop function to get to grips with

44

Emulating Mac or PC colours

Web designers need to remember that brightness and contrast levels are different on PC and Mac monitors, meaning that images will appear differently on the two platforms. To quickly see what your image will look like on whichever platform you aren't using, click on 'File', 'Save for Web' and then click on the small 'Preview Menu' arrow at the top right. Now select either 'Standard Windows Color' or 'Standard Macintosh Color' and Photoshop will display the difference for you.

45

Batch process with actions

If you've got a stack of images that all need the same 'action' to be applied to them, instead of opening each one individually and manually running the action each time, use the 'Batch' utility ('File', 'Automate', 'Batch'). As well as saving you a decent amount of time, this also ensures that the boredom of repetition doesn't make you forget anything. In the top boxes, set the action you want to execute, choose the images in the 'Source' menu and set a final destination for the edited files. Hit 'OK' and then go away - because Photoshop does all the hard work for you.

46

Get to know your image formats

When creating images for the Web, you need to do more than make them look attractive. How long they take to download is a crucial concern, but you can make sure your site's visitors aren't kept waiting by ensuring you compress images using the right file format. Don't just use JPEGs for everything, though. They're great for reducing the file size of photographs, but if you're using a lot of flat-colour artwork like small vector illustrations or logos, saving to GIF format can be a far better option. To change formats, select 'File', 'Save for Web' and then use the 'Settings' dialog to choose the new file type you want.

49

Same but different

When making DVD interfaces or effects overlays designed for video, never forget that a TV cannot display the same colours as your monitor. The colours you see on your computer may look totally different when broadcast, so to get an idea of how your design will turn out on your TV, select 'View', 'Proof Setup', 'Custom' and, in the 'Profile' drop-down list, select 'PAL/SECAM'.

50

Final print adjustments

When you're happy with an image and are gearing up to print, you can specify Color Management and Output options by clicking 'File', 'Print with Preview'. When the window opens, click on the 'Show More Options' tab at the bottom to bring up extra controls. Here you can set Print Space Profiles and adjust advanced document settings including Background, Border, Bleed and Screen colours.



Even digital artists sometimes want hard copies, so don't fall at the final hurdle - make sure you print as best you can

43

Make a Web gallery

Got images that are destined for the Web? You don't have to get bogged down with HTML - just relax and let

Photoshop draw you up a fully functional HTML gallery complete with clickable thumbnails and hyperlinks. Click on 'File', 'Automate', 'Web Photo Gallery' and then choose a template from the Styles list. Next, point to the folder containing the images you want to use for the Internet in the 'Use' field and hit 'OK'. Photoshop will now do all of the hard work for you. The process will adjust all your images and basically write you a Web site from scratch.



switch to...



Issue Eight On Sale



CREATING COMIC BOOK ART

Learn how to create striking comic book art in Photoshop with a little help from Photoshop's layers, brushes and other intuitive features



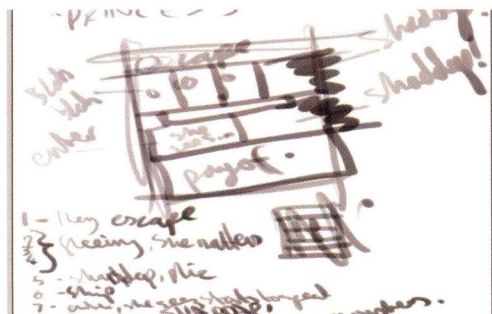
ON THE CD

bluelines.psd
bottom panel.psd
mid panels.psd
palette.psd
pencil page.psd
thumbs 1-8.psd
top panels.psd

Comics as an artform have undergone many name changes over the years, from 'graphic novels' to the more pretentious 'films on paper'. The method of production, though, has remained relatively steady for some time now. Originally comics were produced by teams, starting with the writer who composed the story, the penciller who arranged the figures and action, the inker who controlled the lighting and refined the linework for reproduction, the letterer who placed the hand-written typography on the page, and the colourist who would pick and choose the colours to suit the art.

Since the advent of cheaper and more advanced graphics technology, however, these roles have become blurred to the point where one person can now do all these tasks and therefore retain more creative control. This has also led to the traditional styles of line-art, with flat colour being gradually expanded and replaced, and the styles in modern comics share many surface qualities with computer games and highly polished special effects seen in movies like *The Matrix*.

The one surprising thing, though, is that even with the graphic potential of Photoshop, many successful artists who use this package still seem to be trying to force it to mimic the surface effects of comics from decades back. We particularly enjoy working in Photoshop because its intuitive layers and brushes mimic the real world seamlessly, allowing us to create without the need for deciphering software. ■



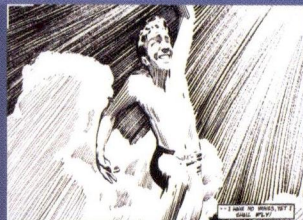
■ Early ideas for 'Princess' were scribbled down on random scraps of paper – and eventually developed into the masterpiece you see on the right



CREATIVEPRIMER

Self-publishing

With modern technology, there is no excuse for the determined comic creator not to publish his or her own work if all other doors seem closed. One person can now create the art, the words, and then output it via a desktop printer to feed the humble needs of the self-published market. The competition and quality is growing, though...



It's now quite possible to publish your own work – but the competition is getting stronger

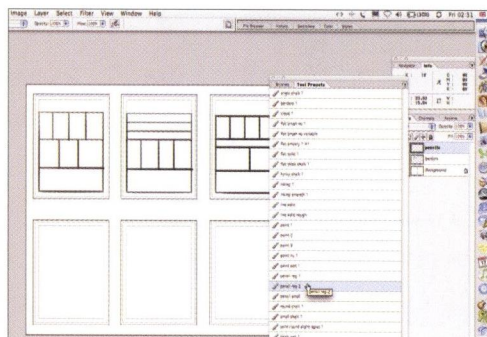
YOURGUIDE

FRAZER IRVING is the award winning, guitar-swingin' cool kat of the British Comics scene. He draws horror most of the time, but also has a sideline in freaky psychedelia and pulse-racin' babes. He loves brushes and computers, colour and monochrome. His work can be seen regularly in *2000AD* and his Web site is at www.frazerirving.com. Pop along and say hello.



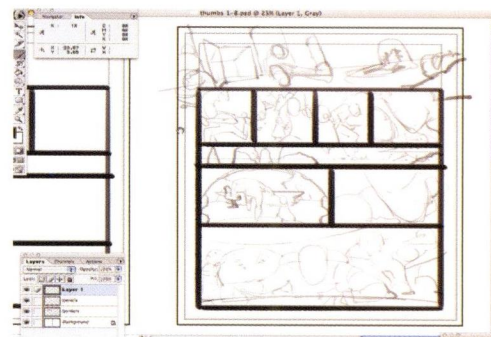
Step-by-step: create your own comic strip

Using Photoshop's drawing tools, it's easier than you think!



1: Use templates

Start your comic strip with a page of templates. These should be proportional to the printed page – the different guides relating to the text area, trim and bleed. It's a good idea to explore different panel layouts before starting to draw.



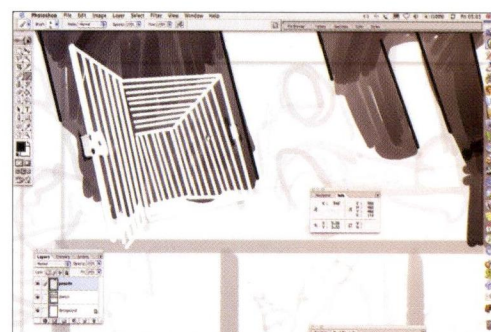
2: Creating quick layouts

You can easily create some quick layouts using the 'Brush' tool and an A4 Wacom graphics tablet. This will give you the freedom to change bits or to try different ideas on new layers.



3: Photoshop tools

Even at this stage the tools in Photoshop are very useful. In order to create a shadow of the escaping couple, you can simply use 'Copy/Paste', 'Transform', and the job will be done.



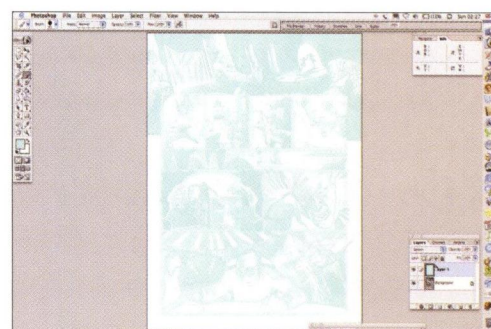
4: Create the cage

Use a solid brush with no opacity or size variations to create the cage. Click at the start of the line then Shift-click at the end. As with the rest of the 'pencils', this cage is just a guide for you to 'ink' with real brushes later.



5: Add some detail

You can now refine the 'pencil' art with more detail using the 'Brush' tool. White is useful for some effects and the 'Transform' tool will reshape anything drawn too big, etc. Varying brush sizes with the keyboard ('[' and ']') saves time.

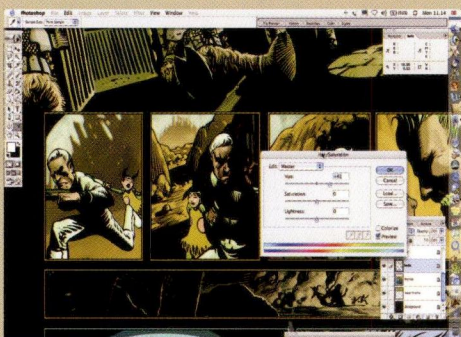


6: Copy and paste

Once you're happy with the sketches, flatten the image and select the drawing with the 'Marquee' tool. Copy and paste it into a pre-sized page template for printing. A new layer is made, filled with the 'Blue-line' blue. Ensure it's set to 'Screen'.

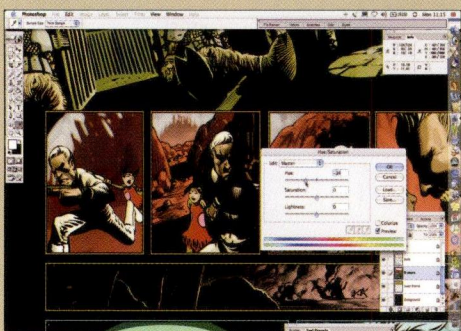
CREATING COMIC BOOK ART

Experimenting with colour



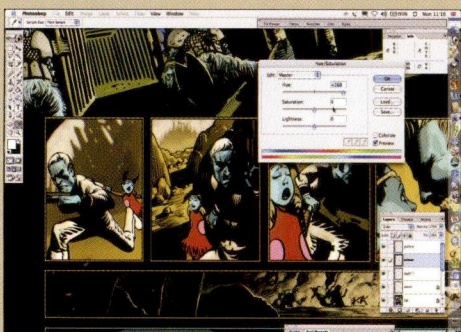
Hue/Saturation

One thing that might have put you off colouring is fear of getting it wrong. But now in Photoshop you can explore with the 'Hue/Saturation' tool and never worry about errors again. Always separate the main areas of colour so you can isolate and adjust them freely.



Play with the colours

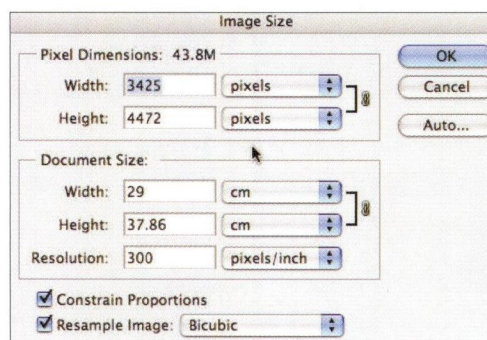
With the background and figures on separate layers, you can play around with the colours without ruining the other layer. You can also lessen the saturation or play with the darkness.



Tweak all layers

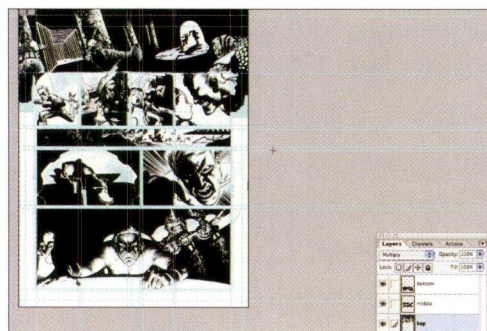
Using an extra layer above all this, set to 'Color' in 'Layer' mode, you can affect all the layers at once if you need to. This added level of control is usually one of the last and can be used to tweak bits you previously missed.

Continued...



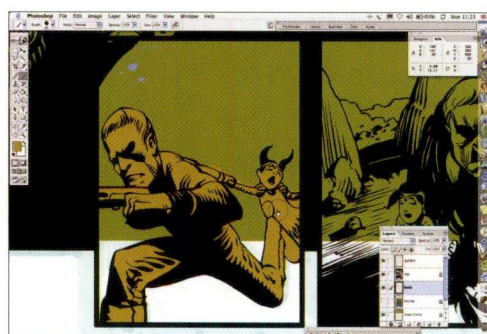
7: Print it out

We wanted to use A3 paper, so we set the art to be 29cm by 37.98cm, which fitted everything on nicely. The page was then printed on an Epson 1290 A3 printer onto Bristol board, and we inked it in using sable brushes.



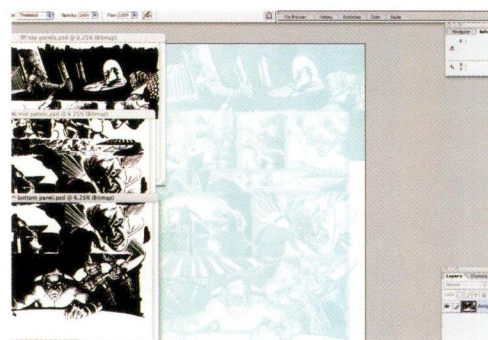
11: Begin tidying up

Once the panels have been trimmed and positioned, begin the process of tidying up any edges that need a bit of ink. As you can see here, the guides are now all in place for drawing in the borders to the panels.



15: Paint solid shapes

Next, make another new layer. This time, using the 'Pencil' tool, paint solid shapes of colour for the main figures in the panels. This will allow freedom of editing later. Again, lock the layer.



8: Scan it in

Once the art is inked by hand, you can scan it in in sections, focusing on sets of panels. We used a Canon scanner to scan in the art at 600 dpi as a bitmap, with the threshold adjusted to pick up a little more weight on the line.



12: Fill in the bits

To tidy the edges, use the 'Marquee' tool to select the panels which are okay, then invert the selection and use the 'Brush' tool to fill in any black or white that's needed. Now merge the three layers and set to 'Multiply'.



16: Isolate the elements

Isolate only the elements which you think need it. This is important as a thought process as well as a technical exercise – it will help define the important areas in each panel.

CREATIVEPRIMER

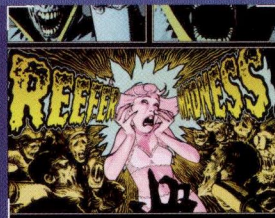
Lettering

Lettering is used to add to the narrative, not explain it. Comics work as a text/image synthesis, and the letterer's art is often described as 'the invisible art' because it must convey information without being noticed.

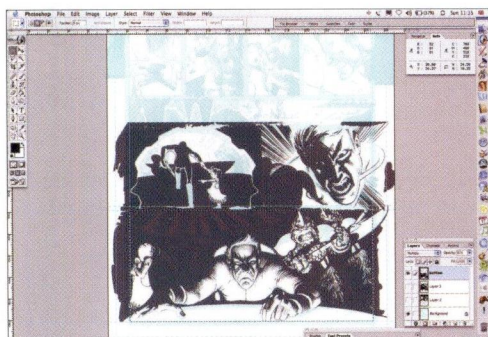
CREATIVEPRIMER

Our inspiration

The page we drew is a small homage to the horror comics of the Fifties in terms of style, specifically the art of Wally Wood and Berni Wrightson. EC comics were the kings of their day, and still inspire many of today's artists.

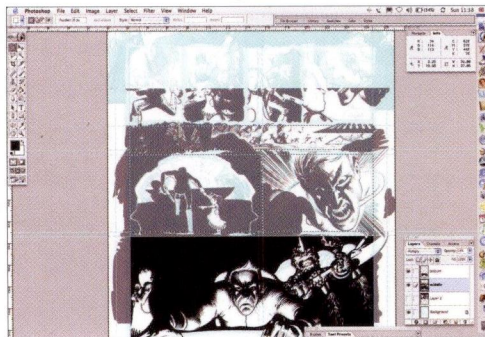


■ A typical comic book page: you can use layers and brushes to create the illusion of a traditional comic strip



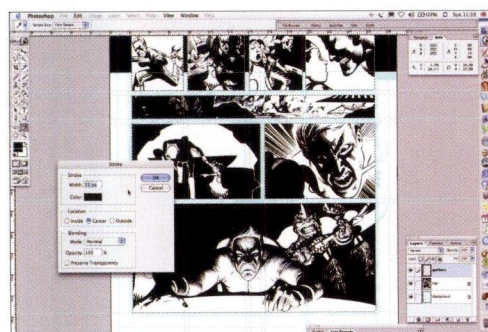
9: Make sure they match

Copy and paste each scan into the RGB document and line them up. Now raise the master document resolution to match the 600dpi of the line-art, so they match up exactly. Select and invert the panel area, and delete the unwanted parts.



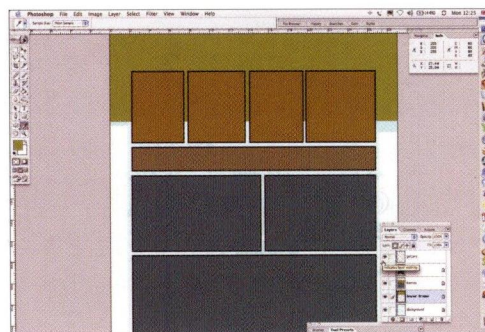
10: Repeat the process

Do this with each section of the scans, so the panels are crisply placed above the pencil guides, with no stray line poking out from the edges. For larger images you may have to resort to an A3 scanner with a lower resolution.



13: Draw the borders

Panel borders are drawn with the 'Stroke' function. Use the guides to select the panels, holding down Shift as you add each to the group. Now make a new layer and go to 'Edit', 'Stroke'. Pick 'Center' for the best effects and '15' pixels for a decent line.



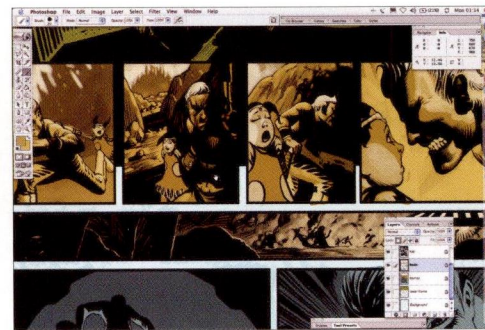
14: Set up the backgrounds

Now that the line-art is fixed, you can set up your backgrounds. Select the panels using the guides, create a new layer and fill it with the basic background colour for each scene. Now lock the layer.



17: Paint shadows/highlights

On the body layer, choose a brush from the 'Brush' tools and paint shadows/highlights onto the figures. It helps to create a new document as a palette. Paint in the colours you may use and Alt-click with the brush to pick colours from it.



18: Paint the background

You can also paint on the background layer, creating clouds and bringing out shapes that were suggested in the pencil stage. Varying brushes helps to create depth and texture.

Using line-art



Two schools of thought

The line in comics is extremely important, and must always control the art more than the colour. Using modern computers has made this more complicated, and there are two different schools of thought on line-art.



Scan as a bitmap

Scanning the line-art in as a bitmap is generally the preferred method. Even though at low resolutions this creates 'jaggies' which ruin the line, it's easier to work with, thanks to the lack of anti-aliased edges.



Greyscale line-art

Greyscale line-art is ideal for art which has subtleties of grey in it, and also has a gentler variation when combined with colour. Bitmap will give you more solid, sharp lines, but both methods have their place.

CREATING COMIC BOOK ART

Continued...



19: Keep it simple

For the interior of the ship, it would be best to keep things simple. Use the 'Marquee' tool to create the shapes of the console and then just paint them in on the background layer.



20: Create the roof circles

Use the 'Select', 'Modify', 'Expand' and 'Stroke' functions in order to create the roof circles. The patterns need to be simple – so they don't confuse the panel – yet you also want some solid shapes.



21: The costume detail

Painting detail on the costume relies on basic drawing skills. Here we've used three tones to simulate the reflective qualities of the space suit. All this colour goes behind the line-art layer, so we can be freer with the marks.



22: Playing with colour

On the opening panel we painted some warmer colours over the cooler greens, which created a wider range of subtle hues than just light green. Keep your initial colour work in monochrome unless you have a strong idea to begin with.



23: Don't get clinical

Try to avoid using too much Photoshop for shapes etc, because this will make it too clinical. Here we are 'eyeballing' the step lights, although we're using a marquee as a guide. This helps keep it accurate yet 'hand-drawn'.



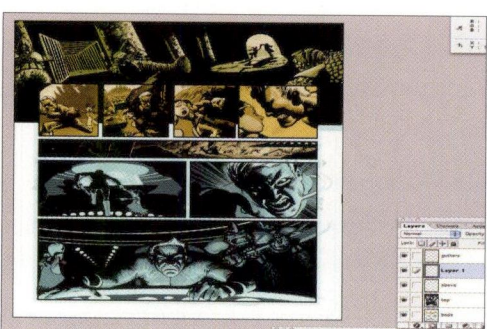
24: Ditch the initial designs

Once again we're using a marquee plus the 'Select', 'Modify', 'Expand' function to create the solid roof circles. Here you'll note that our initial pencil designs have been ditched. You'll find that designers often do this because it helps to keep the work 'alive'.



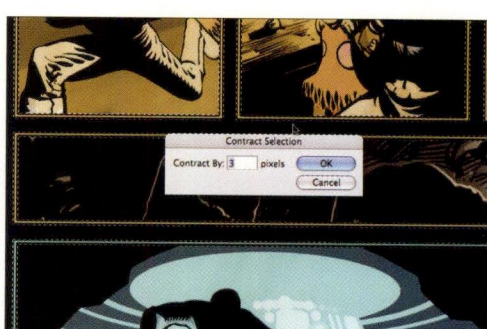
25: Draw the buttons

You can use the 'Marquee' tool to draw the buttons on the console as well – it's easier than trying to draw them freehand! The 'Marquee/Lasso' tools are a great help when drawing a difficult shape, but try to avoid becoming dependent on them.



26: Nearly finished

Here the artwork is almost done. The borders float on top, then the colours in the ship, then the line-art, figures, backgrounds, and finally the pencil sketch. So far, most of the colour is monochrome, but...



27: Ditch the sketch

Before the final stages, we can ditch the sketch, so fill the background layer with black. To bring the borders out, Ctrl-click the layer, then select 'Modify'. Contract by 3 pixels. Now simply paint in the colour that you want to frame the panel.

SAYWHAT?

INKING

The process of drawing over the sketches with solid black ink so the art can be photographed/scanned in clearly.

BLUELINE

A printout of pencil art in a non-repro blue which is invisible to most scanners.

GUTTERS

The spaces between the panels – the most important bit.

WEBRESOURCES

Whet your appetite for creating comic book art by checking out the following selection of essential Web sites, where you'll find both inspiration and instruction:

- www.balloontales.com
- www.2000adonline.com
- www.brianbolland.com
- www.d-israeli.demon.co.uk
- <http://groups.yahoo.com/group/artdroids>

Get to know Photoshop's palettes

Knowing what the palettes can do will go a long way to helping you get the best out of Photoshop, and give you more freedom to focus on being creative

Swatches palette

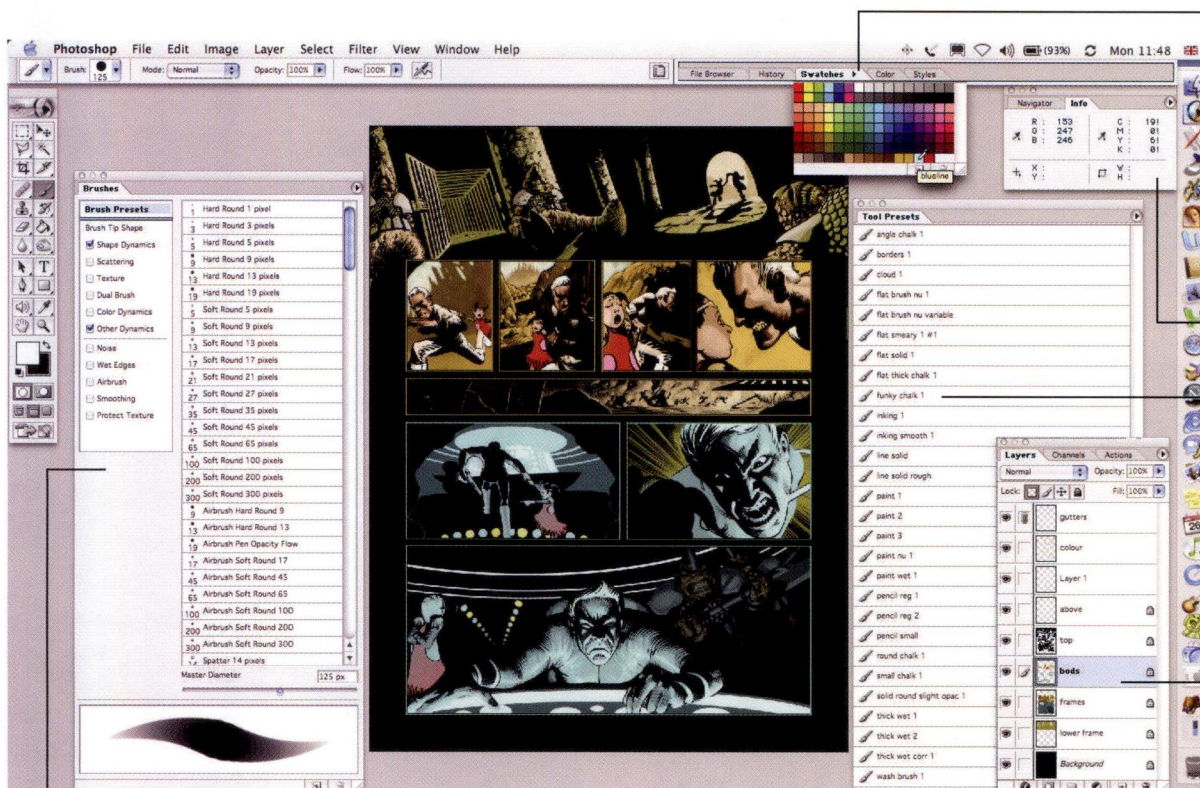
This is where you store specific colours, such as the blue used for the blue-line stage of the art in the example project

Info palette

This gives you information on the colours you choose, because often the screen can give misleading results

Tool presets

Here you can store all your favourite brushes and custom brushes for easy access



Brushes palette

In the 'Brushes' palette you can choose and manipulate your brushes to create the desired texture or line effect

Layers palette

Keep each separate element on a different layer to allow for easy, clean editing, as well as to take advantage of the layer effects



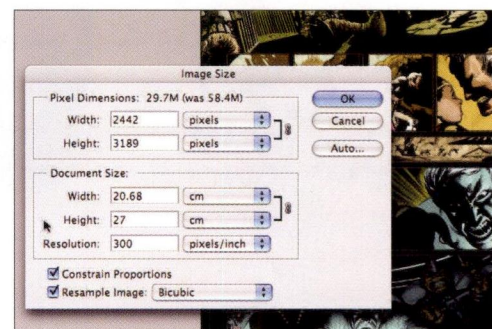
28: Experiment with colour

Create a new top layer and set it to 'Color'. Now you can paint subtle shades over the entire image to break up the monotony of monochrome, but remember that it's best to keep colours simple, bold and strong.



29: Colour variations

Here are some extreme variations with the colour layer, changing the mood. However, we like the strong colours and will stick with them. This also allows us to go back and paint on underlying layers for new effects.



30: The final stage

All that's left to do now is convert the image mode from RGB to CMYK, flattening the layers, then go to 'Image Size' and set it to '300dpi' at '27cm' high. This is about the right size for any printed strip.

Subscribe today and save 50%!

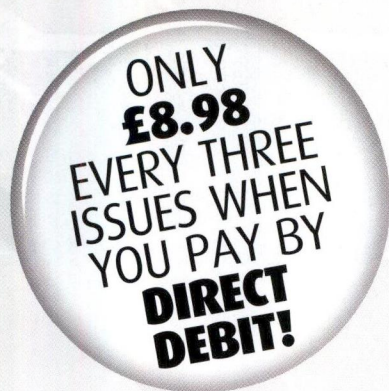
Your amazing subs offer:

- Nine issues of our sister magazine *Digital Creative Arts* and nine CDs!
- Save 50% on the annual cover price
- A total saving of £26.95!
- Free delivery to your door

JUST
£2.99
PER ISSUE
WHEN YOU
SUBSCRIBE!



HURRY! Special introductory offer – only available for a limited period!
Call our credit card hotline now on **+44 (0) 870 444 8682**. Fax your
orders through on **+44 (0) 1458 271146**. Email us at **dca@cisubs.co.uk**



Five reasons why we're number one:

- We've got over 40 pages of tutorials in each issue – **MORE** than any other mag for digital creatives
- We're the only magazine to cover Photoshop, illustration, digital video, and 3D in **EVERY** issue
- Each issue comes with a **FREE CD-ROM** packed with the very best software and resources
- Our content is **100% ORIGINAL** and has never been published anywhere else before
- We source only the very best writers and experts to bring you the advice and guidance you need

Enjoy **Digital Creative Arts** for a whole year for **half price**. That's nine issues and nine CDs at a **saving of £26.95** on the normal newsstand price – it's a snip!

Yes, I would like to subscribe to **Digital Creative Arts**

PERSONAL DETAILS

Your name _____
 Address _____
 Postcode _____ Email _____
 Phone number _____ Date of Birth _____

SUBSCRIPTION AS A GIFT

☐ New Subscription

Name _____
 Address _____
 Postcode _____ Email _____
 Phone number _____ Date of Birth _____

PAYMENT DETAILS

1. Direct Debit

☐ UK only: £8.98 every 3 issues

It's even smarter to pay by Direct Debit.
 Just fill in the form below...

Instruction to your Bank or Building Society to pay by Direct Debit		DIRECT Debit
Please fill in the form and send it to: Highbury Entertainment Ltd, FREEPOST NATW1809, (Customer Interface), Somerton TA11 6ZA		
Name and full postal address of your Bank or Building Society		Originator's Identification Number
To: The Manager Bank/Building Society Address Postcode		8 5 1 4 1 2
Name(s) of account holder(s)		Reference Number
Branch sort code		
Bank/Building Society account number		
Instructions to your Bank or Building Society Please pay Highbury Entertainment Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this instruction may remain with Highbury Entertainment Ltd and, if so, details will be passed on electronically to my Bank/Building Society		Signature(s)
		Date

Banks and Building Societies may not accept Direct Debit instructions for some types of account

2. Cheque/credit/debit card

☐ UK £26.96 ☐ Europe £49 ☐ World £57

☐ Cheque (Esterling made payable to Highbury Entertainment Ltd)

☐ Visa ☐ Mastercard ☐ Switch ☐ Delta

Card number: |
 Expiry date: | | | - | | | Issue No: | | | | |
 Signed: _____ Date: _____



Please return this order form or a photocopy of it together with your cheque/PO (if applicable) to the following address:
Highbury Entertainment Ltd
FREEPOST NATW1809
SOMERTON
TA11 6ZA

Overseas readers please return to: **Digital Creative Arts**, Highbury Entertainment Ltd, Cary Court, Bancome Rd Trading Estate, Somerton, Somerset TA11 6TB

From time to time you may be sent information about exciting new products and opportunities from Highbury - Entertainment Ltd and other selected companies. If you do not wish to receive this information, please tick here ☐

MEDIA CODE: DCASE0404

RETOUCH YOUR 3D RENDERS

All other things being equal, the one thing that's most important for professional 3D artists is getting a job done on time. Speed is essential for meeting tight deadlines, but it's also important for achieving high quality images.

Conventional wisdom says that if you put more time into something you get a better end result. Well, in this case deliberately spending more time in a 3D program can lead to less quality and missed deadlines. The problem is that 3D programs are inherently slow, especially at the crucial stages of a project, namely when all the separate disciplines (modelling, texturing, lighting and animation) come together and the final image or sequence is rendered. There are a number of plug-ins available for the top 3D programs that seek to speed this part of the workflow – interactive renderers that boast 'final quality' previews and 'real-time' interaction. The 3D programs themselves often have these systems (IPR in Maya, Active Shade in 3dsmax, etc), but they are all like tortoises compared to the best tool in the 3D artist's arsenal – Photoshop.

In this tutorial we'll look at the entire process of building a high-quality 3D model, lighting it and rendering a simple image in 3dsmax, then retouching it in Photoshop to get a much more interesting result. To get the same result in 3dsmax alone would involve a lot more time (and effort), something that as a professional 3D artist you simply may not have enough of. There is a tradeoff, of course. Because you are working with a 2D render, if a client decides that the viewing angle needs changing or objects in the scene need repositioning, you will likely have to go back to the drawing board and lose all the Photoshop work. This is why it's important to get these details ironed out before the Photoshop work begins. The other disadvantage is that the technique is not really suitable for animation. There is a way around this, but perhaps that's another tutorial.... ■



■ The render as it came out of 3dsmax is okay, but not terribly interesting. The flat plain walls look distinctly odd next to the vase texture

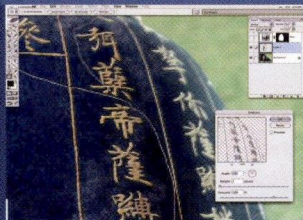
■ Here's the final image - it's much more interesting and detailed than the plain render. Texture mapping this would have taken a lot longer



CREATIVEPRIMER

Using an emboss filter

If you were really fussy, you could use the Gilt mask you created to help create a little relief on the gilt parts of the image, as if they were raised slightly. Fill a new layer with black and run the 'Emboss' filter on it. You can apply this layer in 'Overlay' mode to create highlights and shadows on the edges of the gilt. 'Overlay' disregards greys and only uses the black and white in a layer.



■ If attention to detail is your thing then you might like to run an emboss filter on the gilt parts of the image

YOURGUIDE

SIMON DANAHER is an acclaimed 3D artist and writer. He has been working in 3D computer graphics for over seven years, gaining ample experience in all the major 3D packages. He has written three books, including *Digital 3D Design* and *3D Wizardry*. Simon's current speciality is advanced shading and rendering techniques.



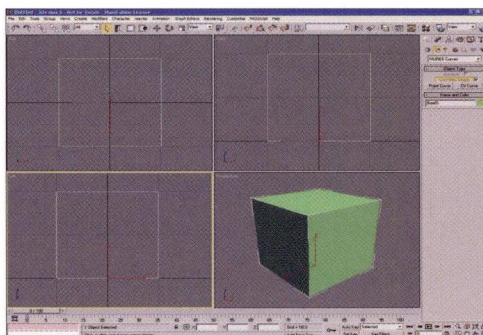
Step-by-step: Retouch a 3D render

We start out in 3dsmax before jumping to Photoshop for some serious retouching



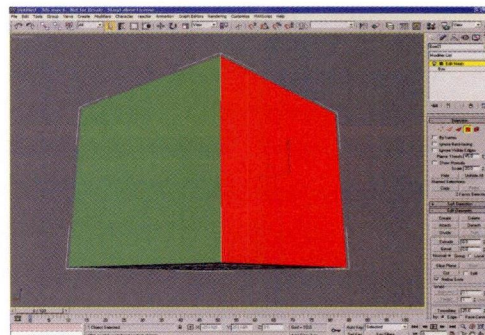
ON THE CD

Chinese Vase.max
Grime.tif
VaseFin.tif
Wall.tif



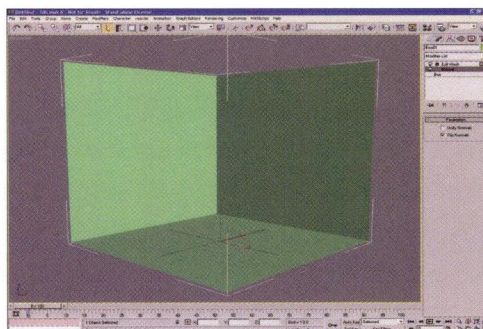
1. Drag out the box

We'll start out in 3dsmax by creating the background for the scene. We'll also keep it simple, so drag out a 'Box' primitive in the 'Top' view.



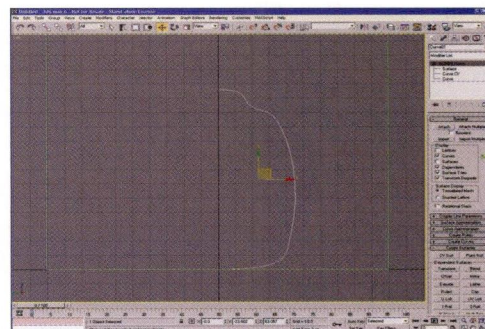
2. Add a modifier

To make viewing the inside of the box easier, click the 'Modify' tab and add an 'Edit Mesh' modifier. Click the 'Faces' selection mode (red square) then select the top and two adjacent sides in turn, pressing the 'Delete' button as you go.



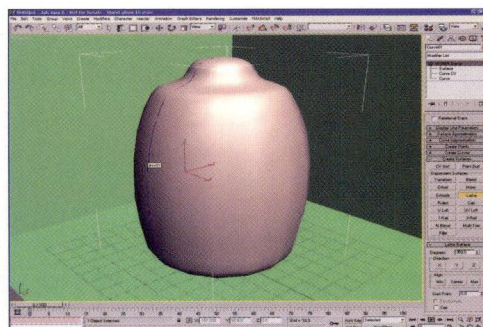
3. Flip the Normals

The inside faces are not rendering because their 'Normals' are pointing outwards. To fix this add a 'Normal' modifier, drag it below the 'Edit Mesh' modifier in the stack and click the 'Flip Normals' checkbox.



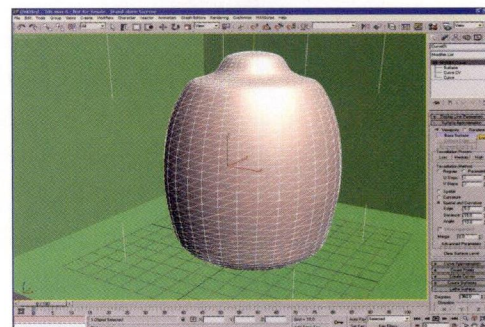
4. Draw the curve

Next, draw the curve profile for the vase. Use a 'NURBS CV Curve' and draw the profile in the 'Front' view. Right-click to end your drawing. At the bottom of the 'NURBS Curve' panel unfurl the 'Create Surfaces' section.



5. Generate the lathe

Now click the 'Lathe' button. In the 'Lathe' options set 'Degrees' to '360' and click on the curve in the viewport to generate the lathe. Click the 'Min' button to align and to set the axis origin to the open ends of the curve, and check the 'Flip Normals' button if the surface appears inside-out.

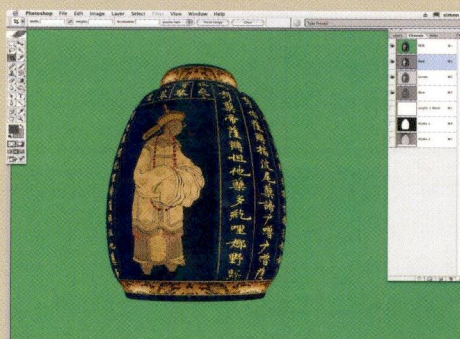


6 Set the surface quality

Let's set the surface quality. In the 'Surface Approximation' section of the 'NURBS Curve' modifier, click the 'High' button in 'Tessellation' properties. Use the 'Edges Faces' or 'Wireframe' view to see the polygons if you want to.

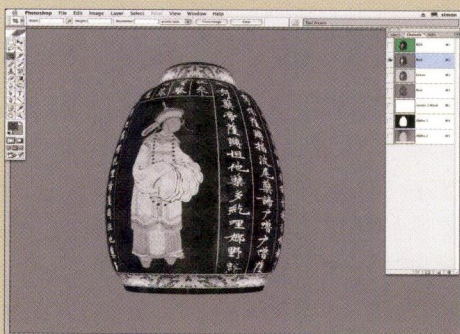
RETOUCH YOUR 3D RENDERS

Creating the Red channel Gilt mask



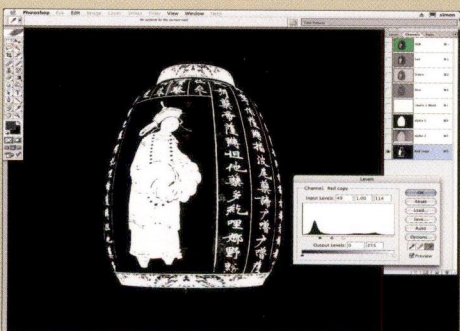
Hide the layers

Option-click the eye of the 'Diffuse-L' layer to hide all others. This is the flat diffuse shaded layer that has no lighting information in it.



Display the Red channel

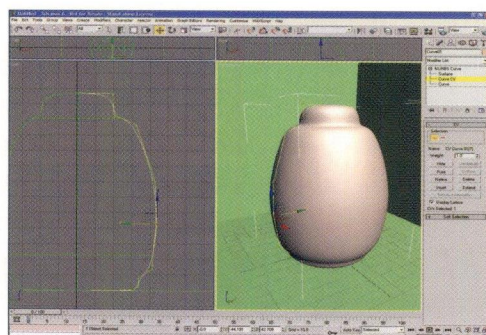
Click the 'Channels' tab and now click on the 'Red' channel. The 'Red' channel will be displayed in greyscale (unless you've set Photoshop's prefs to display colour channels in their colour).



Your new channel

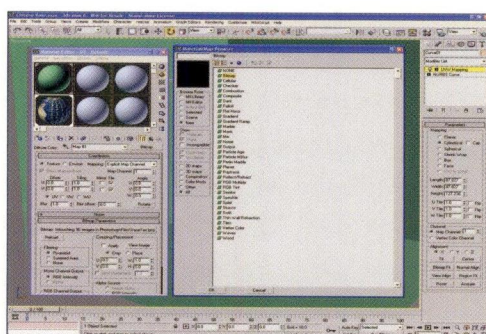
Drag this to the 'New Channel' icon in the palette. Fill the background with black, using an inverted selection of the 'Vase Mask' channel. Using 'Levels', first click the white eyedropper and click on the man's face, then click on the black eyedropper and click on the blue part of the vase.

Continued...



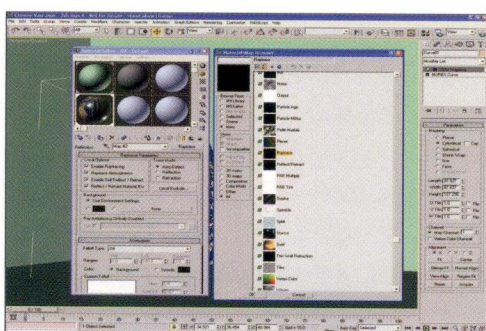
7 Edit the shape

You can edit the shape of the curve to fine-tune the vase by clicking on the 'Curve CV' sub-section of the 'NURBS Curve' modifier. Click the 'Insert' button if you need to add extra CVs and click on the curve to place them.



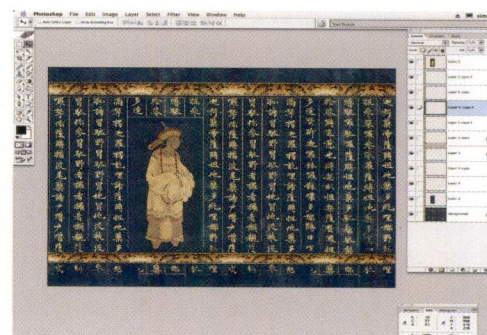
9. Add a UV Mapping modifier

Add a 'UV Mapping' modifier to the vase, then open the 'Material' editor and apply a material to the 'Vase' object. Click the 'M' icon next to the 'Diffuse Swatch' in the 'Basic Parameter' and choose 'Bitmap' from the 'Shader' list. Locate your vase image and load it.



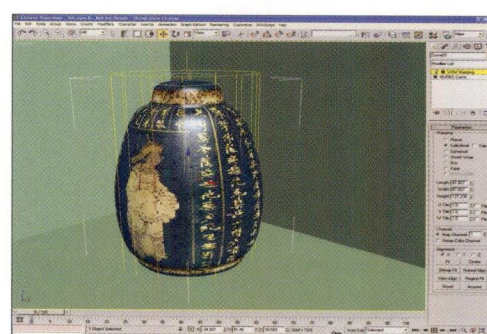
11. Adjust the texture

We've moved the vase into the corner of the cube and composed the frame a little. Next, we'll adjust the texture. In the 'Material' editor select the 'Maps' tab and click the 'Raytracing' option. Add a 'Raytrace' shader to that channel.



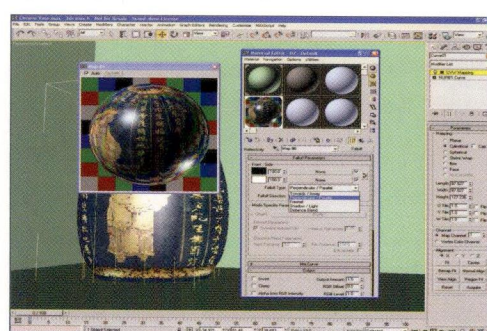
8. Our vase texture

Here's our vase texture, which we've cobbled together from various images. Because of copyright issues we can't supply this same image, but the exact image used for the texture isn't important. Always check the copyright of images you use, although for personal use there shouldn't be a problem.



10. Set mapping type

In the 'UV Mapping' modifier set the mapping type to 'Cylindrical' and click the 'Alignment' button to align the projection. For us it's the 'X' button. Also click the 'Fit' button to fit it to your vase. Use the 'Move' and 'Rotate' tools to adjust the placement if necessary.



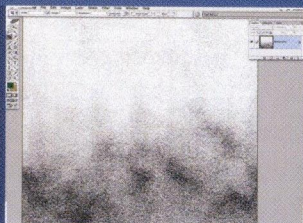
12. Add a Falloff shader

In the 'Reflectivity/Opacity' section of the Basic material Settings section add a 'Falloff' shader. Set its mode to 'Perpendicular/Parallel' and make sure 'Falloff Direction' is set to 'Viewing Direction (Camera Z-Axis)'. This creates a 'fresnel' falloff for the reflections on the vase.

CREATIVEPRIMER

Making the wall texture

You can make the wall texture yourself in Photoshop. First we created a 1000x1000 pixel image, and filled it with noise then blurred it slightly. The 'Filter', 'Textures', 'Crackelure' filter is then used to add some cracks to the plaster. A simple gradient is added in 'Overlay' mode, and then distorted using the 'Filter', 'Distort', 'Wave' filter. Finally, some clouds finish things off.



■ *Feel ambitious? Then why not try creating the wall texture in Photoshop by using a combination of filters and gradients?*

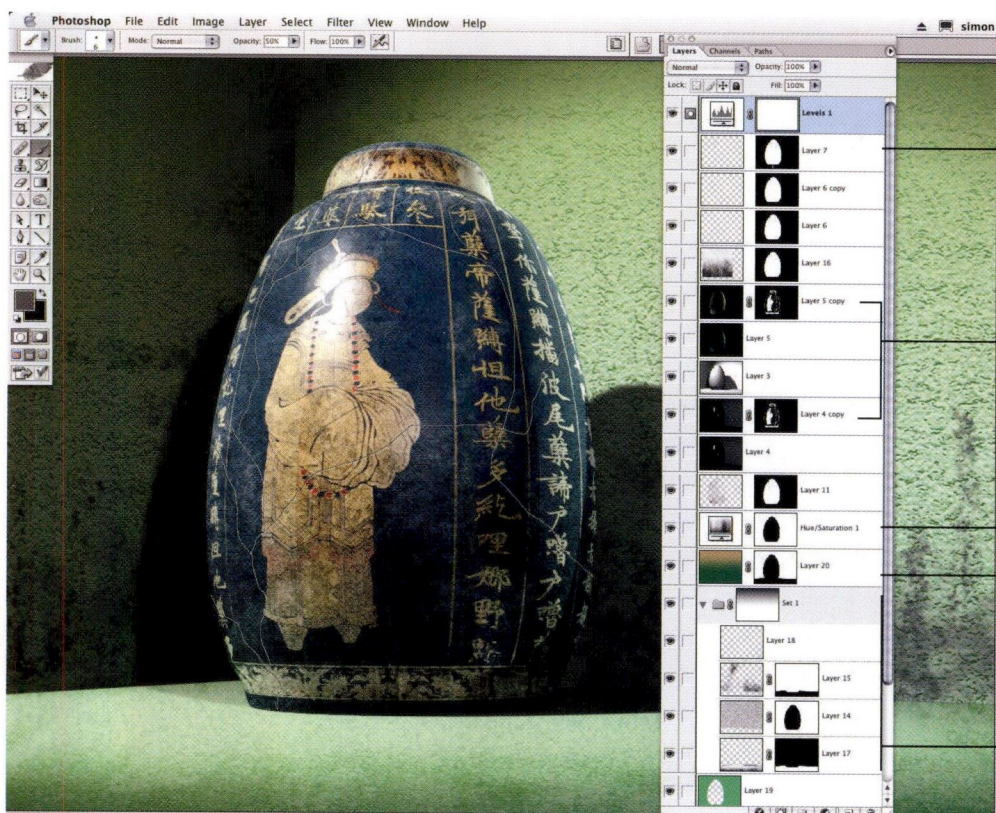
SAYWHAT?

FRESNEL

As a curved surface bends away from view, the reflection of light off its surface appears to intensify. This 'Fresnel' effect creates the illusion that reflections are dimmer on faces that are viewed head-on than those viewed at an angle, so that at 90° to the viewer, the reflections appear the brightest. Fresnel shaders help to create this effect by making a gradient that varies from white to black, depending on the viewing angle a surface is seen at.

Unlocking the Photoshop layers

As ever, layers play a crucial part in retouching a 3D illustration. Here's a quick guide to the layers we've used and what the main ones do for our image



Cracks

These two layers have the cracks on them – one for thin cracks, the other for fatter ones

Making the gilt brighter

These two layers are the duplicate Specular and Reflection layers. The Gilt mask we created is used as a layer mask on each

Hue/Saturation

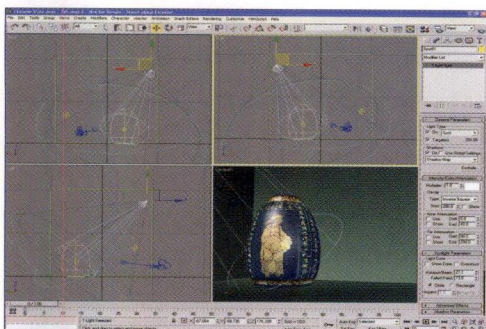
A Hue/Saturation adjustment layer has been added here to adjust the back wall only. A mask protects the floor and vase

Colour Gradient

A green-to-brown gradient is used in this layer to add some subtle colour variation in the wall

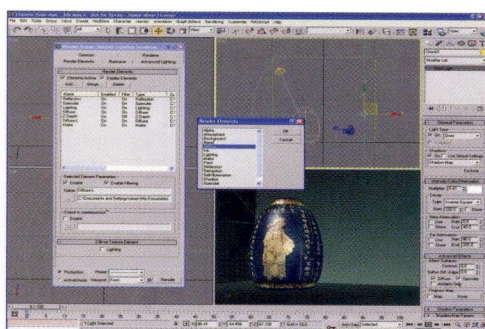
Wall set

The Wall Grime layers are all within this layer set. A mask is applied to the set to fade out the grime the further up the wall it is



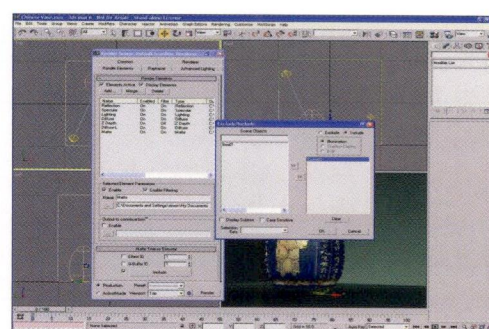
13. Add the lights

Two lights are added to the scene – a 'Target Spot' and an 'Omni'. Set depth mapped shadows and Inverse Squared falloff for both, and increase the falloff distance to just past the vase. Reduce the intensity of the 'Omni' to about 0.4.



14. Almost ready to render

We're almost ready to render, but we need to render separate images for different render elements. In the 'Render Scene' panel click the 'Render Elements' tab, click 'Add' button and select 'Reflection', 'Specular', 'Lighting', 'Diffuse', 'Zdepth' and 'Matte'. Add another 'Diffuse' but disable its 'Lighting' option.



15. The Matte element

Rename this 'Diffuse-L' and select the 'Matte' element and click the 'Include' button in the 'Matte Texture Element'. Select 'Curve1' (the vase) from the list, move it to the right column and click 'OK'. This will create an alpha mask for the vase.

RETOUCH YOUR 3D RENDERS

How we got down and dirty with our render

In order to create a perfect 3D render it was necessary to introduce imperfections into our image with Photoshop. Here's a quick breakdown of what we did and where

Depth of Field

Depth of Field adds dynamic interest and depth to the image. It's done in Photoshop alone

Vase dirt

Dust and dirt can be simulated using Photoshop's scattering brushes

Colour gradient

A subtle colour gradient breaks up the flat, solid colour of the untextured wall

Vase cracks

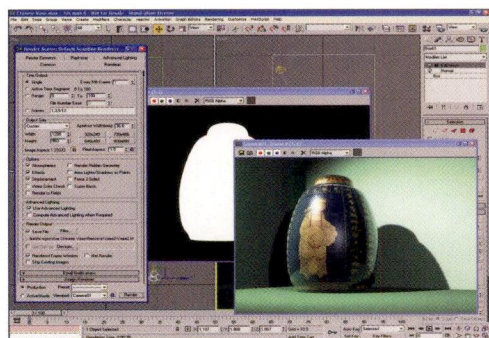
Cracks in the vase have been painted directly in a layer in Photoshop with a fine brush. The Emboss filter is used to give the cracks depth

Wall grime

Adding the wall texture is simply a matter of adjusting a flat texture to match the perspective. Details like dirt in the corners are simply painted on

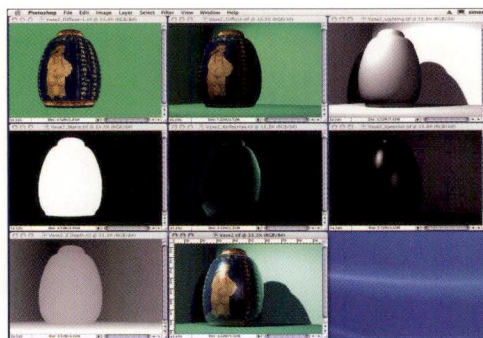


Continued...



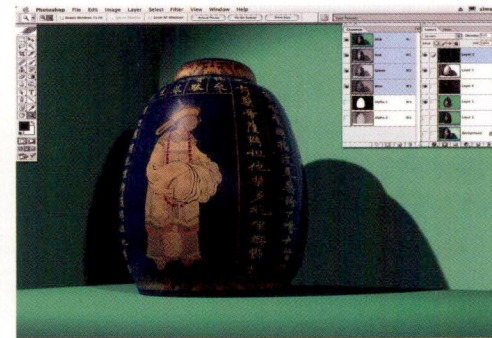
16. Render the scene

Choose a location to save the render in the 'Common' tab. Set the resolution, select the perspective, view and render the scene. Each element will be saved as a separate file for compositing in Photoshop. This scene (except the texture) can be found on the CD and is called Chinese Vase.Max.



17. Open the renders

Open the renders in Photoshop (you'll find them on the CD). Two are alpha masks, the rest are colour and illumination renders. One is the normal 3D render. Drag each of the layers from the other documents into this one to make a composite file. Hold the 'Shift' key as you do this to centre the layers.



18. Stack the layers

Stack the layers in this order and use the blending mode indicated: 'Diffuse -L(Normal)', 'Specular (screen)', 'Illumination (Multiply)', 'Reflection (screen)'. This reconstructs the image more or less as it would be normally.

CREATIVEPRIMER

Changing colours

You're not limited to just dirtying up an image, of course. Using the masks and rendered layers you can do anything you like, such as changing the colours in the vase. Here we've added a 'Hue/Saturation' adjustment layer and adjusted just the blue and cyan parts of the spectrum to make the vase more of a jade green.



Feel free to tinker to your heart's content on Photoshop - here we're adjusting the colour balance of our render

WEBRESOURCES

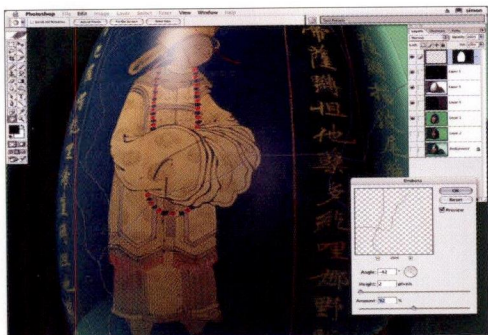
Below are some links for using 3D and Photoshop on the Web

www.CGchannel.com/forum

Here you'll find lots of work in progress images and critiques from great artists. Many of the finished works combine 3D editing with Photoshop correction and creation of additional elements.

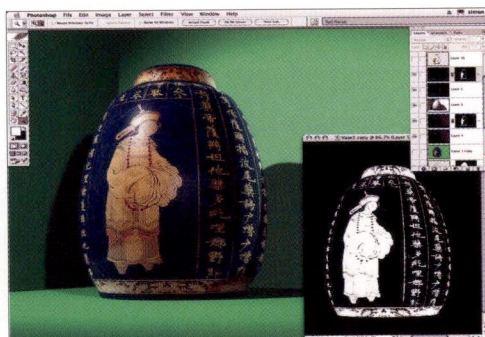
www.dvgarage.com

DV Garage has great tutorials and critiques, but also a section on observing reality. This helps you analyse what you see in real life and apply it to your 3D works, especially dirt and grime.



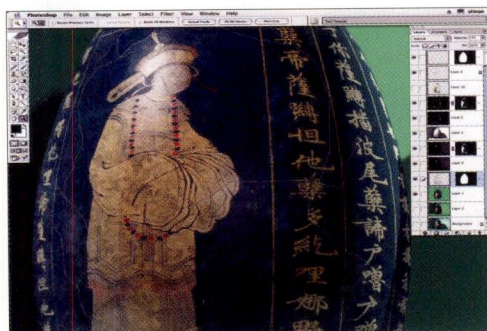
19. Add some cracks

Add some cracks to the vase by loading the 'Vase Matte' channel as a selection and applying it to a new layer. Paint the cracks with a 1 or 2 pixel brush, then apply the 'Emboss' filter to give them depth. Hide all but the 'Diffuse-L' layer, then, in the 'Channels' palette, duplicate the 'Red' channel.



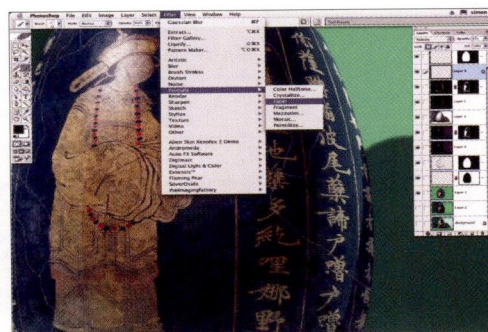
20. Add a glint

Now, using 'Levels', click on the figure with the white eyedropper, and on the background of the vase with the black eyedropper. Fill the background with black using the 'Vase' mask. Use this as a layer mask in duplicates of the 'Specular' and 'Reflection' layers to brighten the glint on vase.



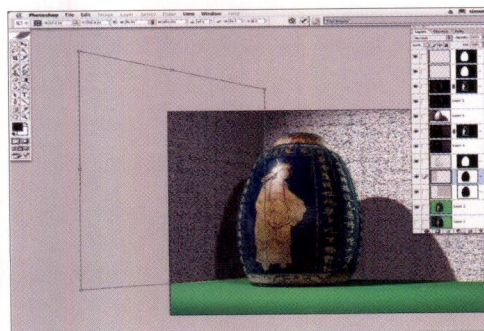
21. Rough it up

In a new layer above the 'Diffuse-L' layer use a Photoshop brush with scattering to paint in some dirt and grime on the vase (it won't affect the glint). Switch between white and black to add 'dirt' and 'dust'.



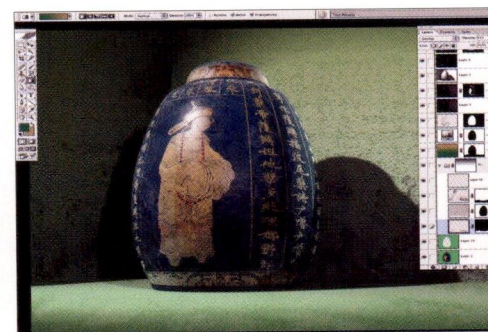
22. Age the gold

In a new layer filled with white and set to 'Multiply', add some noise and use the 'Gilt' layer mask once more. Run the 'Filters', 'Noise', 'Facet' filter then blur slightly. This creates some ageing for the gold.



23. Walls and floor

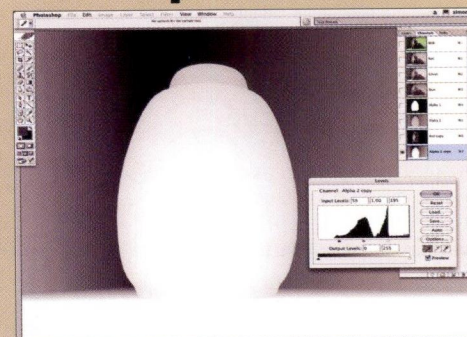
Open the file 'Wall.tif' from the CD and drag it into your document. Use 'Free Transform' to match the perspective of each of the walls in turn. Repeat with the floor. Apply these in 'Overlay' mode, reduce the opacity to taste, and use an inverted copy of the 'Vase Matte' channel as a layer mask.



24. Result!

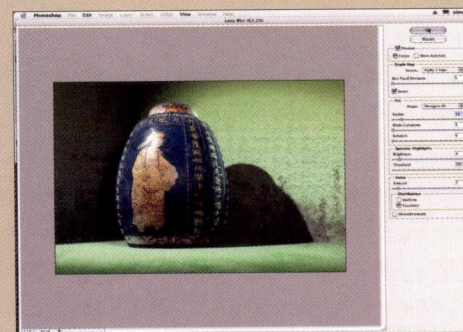
Open the 'Grime.tif' file from the CD and drag into the document. Mask it using the 'Vase Matte' and apply it in 'Soft Light' mode, reducing the opacity. More grime can be painted on the walls in the corners, and a coloured gradient is used in a new layer to vary the colour of the walls.

Get to grips with the Depth mask



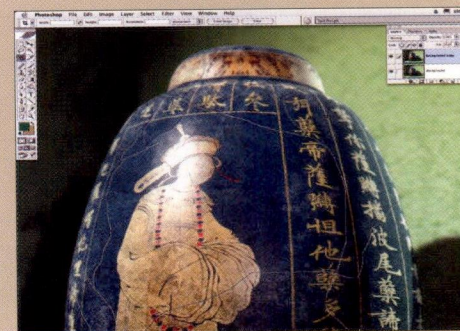
Duplicate the channel

Duplicate the 'Depth' channel and use 'Levels' to set the black and white points. Click on the far corner with the black eyedropper and the centre of the vase with the white one.



Set the Mask channel

Select the background layer then choose 'Filter', 'Blur', 'Lens Blur' in Photoshop CS. Set the 'Mask' channel to be the duplicated depth channel and then adjust the amount of blur.



A blurring effect

Photoshop creates a compound blurring effect to simulate a short depth of focus, effectively blurring the black parts of the mask and protecting the white parts.

INTRODUCING IMAGEREADY CS

We demonstrate how you can turn your finest pieces of work into images that can be used effectively on the Web without sacrificing quality for file size

Optimization palette

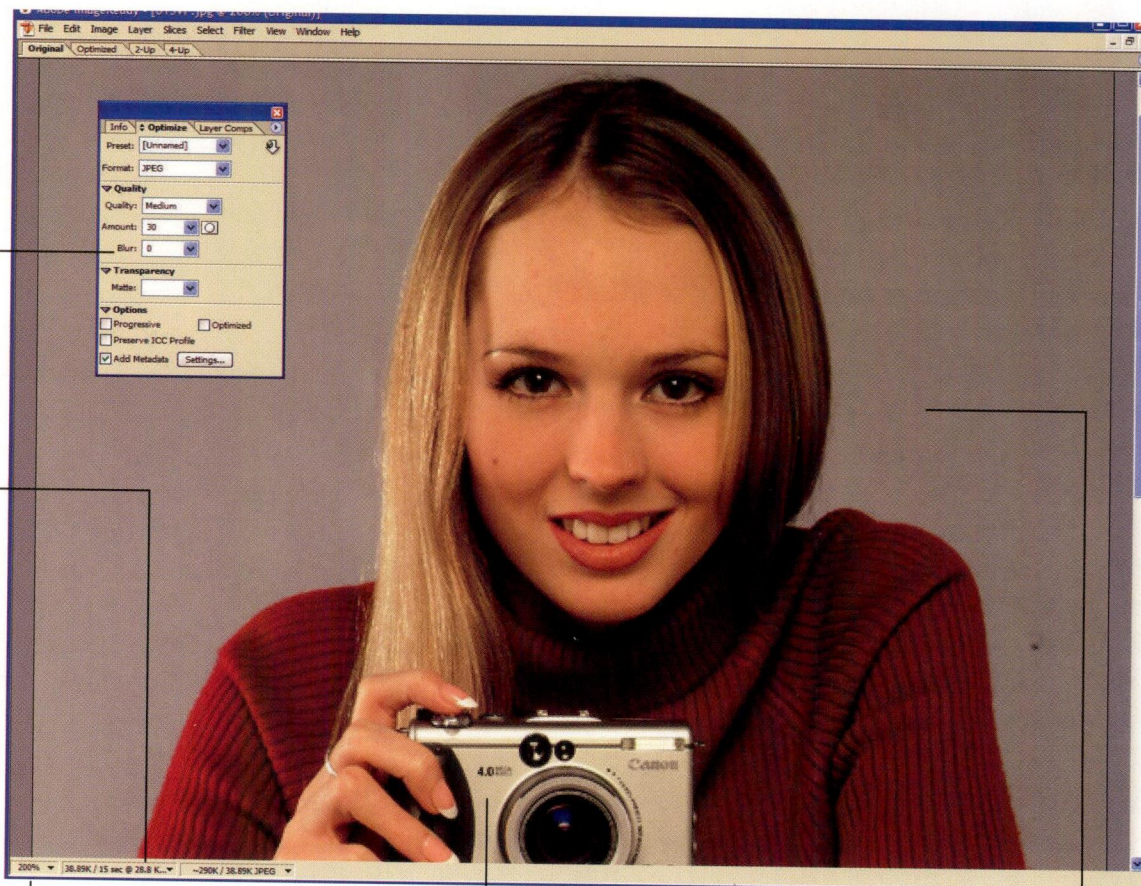
All of the settings that you need in order to save your image for use on the Web are stored here. Use a little trial and error, and you'll quickly discover the right options for your image

Optimization Info

This panel on the bottom left of the interface contains a mountain of information on your image. If you want to know the effect your changes are having on your image's file size, this is the place to look

Zoom view

Zooming in on your image is the only way to properly see how your changes are affecting your image. Change the 'Zoom' ratio with this menu



Original image

This is our original image, untouched as yet, and ripe for all of the optimisation tools that ImageReady can throw at it

No palettes

Notice that we've removed all the palettes from the interface, save for the 'Optimization' panel. This is the only tool we're using, so we might as well make the most of the space



ON THE CD

015VF-finished.jpg
015VF.jpg
logo.gif
logo.psd

Despite their seeming similarity, creating images for the Web and for print are completely different disciplines, calling upon an opposing set of skills and techniques.

Print designers are familiar with the adage that the bigger an image is, the better it is. The same however, can never be said for anyone working on the Web, where the trick is to try and compress as much quality into tiny file sizes as possible.

But anyone can achieve Web-ready images, even if they're used to brandishing multi-megabyte file sizes that would have most Web creatives crying into their late-night cup of coffee. What's more, it's easy to turn even the most complex of images into fine Web files. Everyone wants to display their work on an online gallery of some sort, so here's your chance

to do it in a way that won't keep Web visitors waiting ages for images to download.

We're going to use the functions within ImageReady, the Web imaging tool supplied alongside Photoshop. If you've never used the package before, worry not, as most of the tools are borrowed from or similar to those in Photoshop, so it's a doddle to pick it up.

In addition to a fine collection of animation tools and slicing functionality, ImageReady is well known for its Web optimisation features. In fact, if you're unwilling to migrate from Photoshop for the short time this will take, think of ImageReady as Photoshop's Save for Web function writ large. And, with all the optimisation tools built into the main interface, it's even easier to use than Photoshop.

Your view

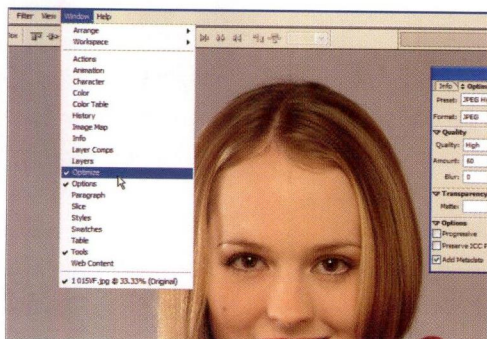
Like Photoshop, ImageReady contains a wealth of options designed to let you configure the status bar at the bottom of the 'Optimize' dialog screen as you desire. Click on either of the arrows at the bottom, and you can choose how ImageReady displays information on both the original and optimised images – this way, you can have the program tell you how long the image will take to download on a variety of connection speeds, as well as get a clearer depiction of the ratio between the original and optimised image.

Size/Download Time (9600 bps Modem)
Size/Download Time (14.4 Kbps Modem)
Size/Download Time (28.8 Kbps Modem)
Size/Download Time (56.6 Kbps Modem/ISDN)
Size/Download Time (128 Kbps Dual ISDN)
Size/Download Time (256 Kbps Cable/DSL)
Size/Download Time (384 Kbps Cable/DSL)
✓ Size/Download Time (112 Kbps Cable/DSL)
Size/Download Time (192 Kbps Cable/DSL)
Size/Download Time (1 Mbps Cable)
Size/Download Time (1.5 Mbps Cable/T1)
Size/Download Time (2 Mbps)

■ ImageReady can tell you how long your image will take to download on a variety of different Net connection speeds

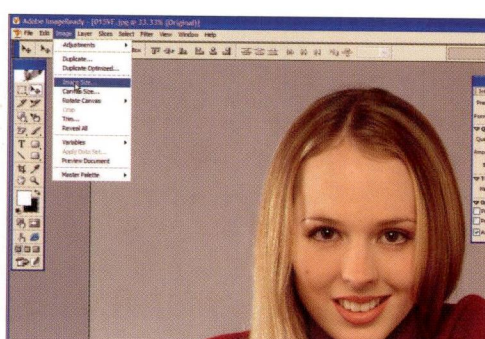
YOURGUIDE

THOMAS WATSON is the editor of *Web Designer*, the UK's leading magazine for Web creatives, and is therefore perfectly placed to demystify the Web tools in ImageReady. If you spot a Web site about Dave The Monkey on your travels, you can be sure it's Tommy's work.



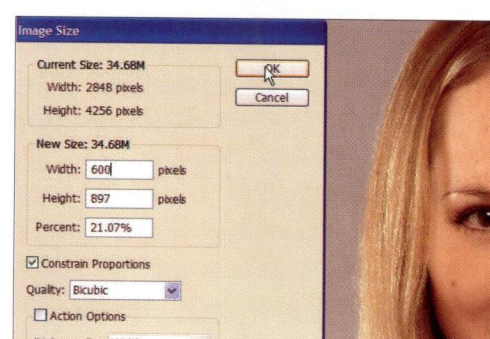
1. Prepare your workspace

First off, let's get ImageReady set up for action. Open image '015VF.jpg' from the cover disc and close all palette windows down the right-hand side. Maximise your image as we've done. Now that you've prepared the workspace for best results, go to 'Window', 'Optimize' to open the 'Optimize' palette.



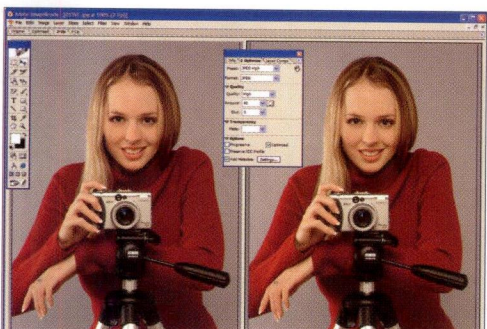
2. First things first

Our image is still far too large for use on the Web, so we'll have to sort this. In Photoshop proper, you can make the image smaller from the 'Save for Web' dialog. In ImageReady, the whole interface is designed to help you optimise your images for the Web, so we do this by choosing 'Image', 'Image Size'.



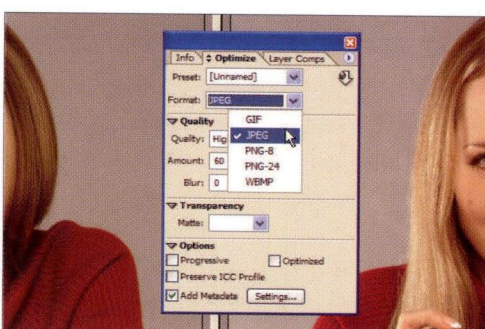
3. Make it smaller

Most people these days use a resolution of 1024 x 728, so we'd suggest always reducing your images down to something around the 800x600 mark. As you can see, we've altered our image to have a width of 600, which takes the height down to 897 pixels.



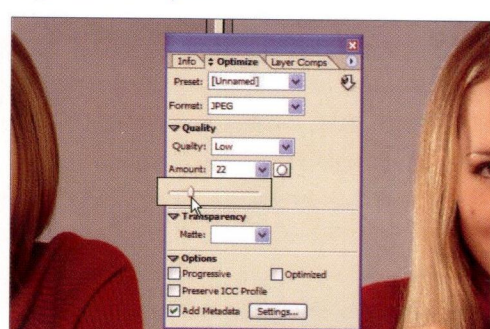
4. Multiple views

One of ImageReady's most effective tools for image optimisation is its viewing modes. Click on '2-up' in the tab at the top, and you'll see the screen split in two – the left side containing your original image, and the right housing your as yet unchanged optimised image.



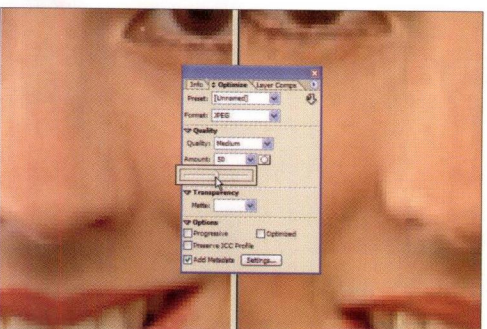
5. Start optimising

Now that we've sorted the ImageReady interface to make optimisation as easy as possible, let's start compressing our image for the Web. The first option is file type: because we're tweaking a photo with thousands of colours, our only real option is the JPEG format, so choose this from the menu.



6. Quality levels

When it comes to choosing a quality setting for your image, which defines the level of compression, you can either choose from a set range of 'Quality' settings or move the 'Amount' slider yourself – the latter gives you far better results. Slide this to '22', and you'll see that the image looks okay.



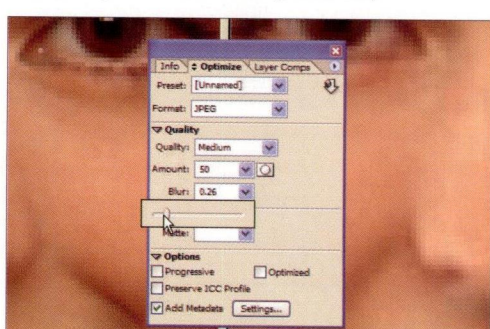
7. Take a closer look

Use 'Control (Command on Mac) & +' to zoom in on the face, and you'll see that a level of 22 leaves our image with a huge number of artefacts. Zooming in is essential, because it shows up problems you'd never see otherwise. Move the slider back up till the image looks okay – we've gone for '50'.



8. Modify quality settings

The button next to the 'Amount' slider lets you tinker with the quality levels of text and vectors in your image, thereby saving precious file size yet further. While ticking both boxes with the 'Quality' setting at '0' will reduce file size, it also creates huge artefact problems. It's best, therefore, to leave these unticked.

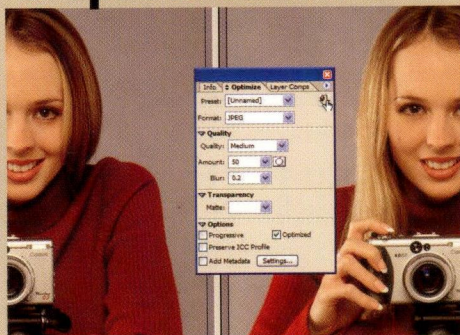


9. Blur away the edges

As you compress your image more in JPEG format, the picture becomes more and more blocky, with formerly individual pixels now arranged in clusters of colour. Adobe has a fix for this problem in the shape of the 'Blur' tool. Used sparingly (we've gone for '0.26'), it will remove blocks without affecting quality.

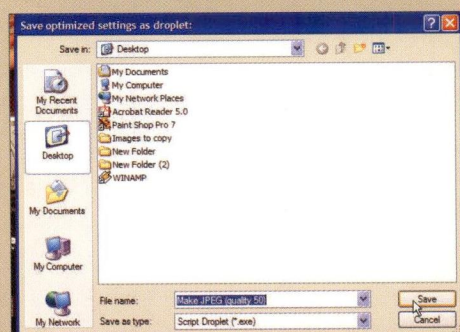
INTRODUCING IMAGEREADY CS

Save time with droplets on a PC



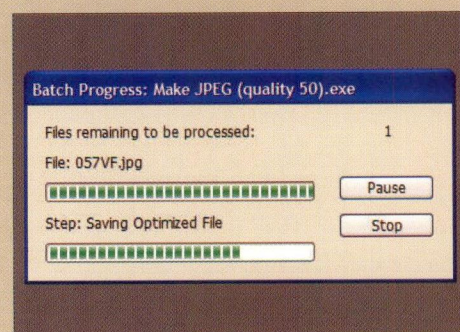
Create a droplet

If you're using a PC, droplets let you save your favourite optimisation settings in an interesting way. This goes further than saving your settings in the palette, because droplets work differently. To do this, make sure your optimisation settings are correct, then click 'Create Droplet'.



Save it out

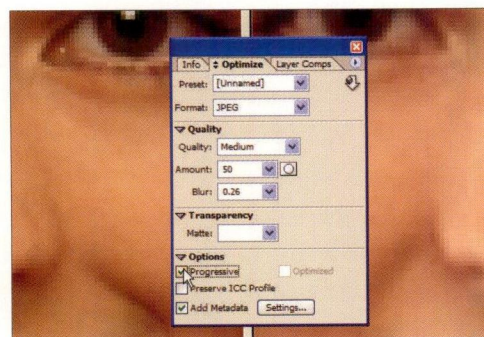
You'll now be asked for a location on your hard drive to save your droplet to. You should notice straight away that the file created is an .exe file, which should give you an indication of how it works. Close the images in ImageReady – you can even close the program if you want to.



Kick-start the settings

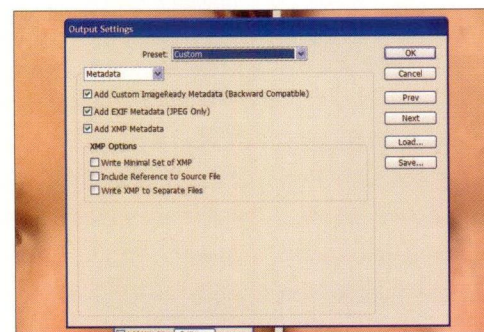
Now, when you want to optimise an image, simply drag the file in question over the droplet .exe. This automatically loads up ImageReady, and kick-starts the optimisation settings you saved earlier. It will even save the file out with a slightly different filename to let you compare and contrast.

Continued...



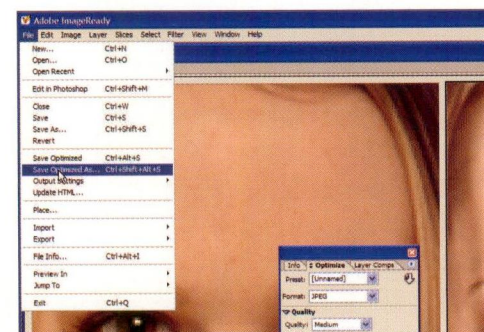
10. Progressive thinking

We'll leave the transparency for now, but below this you have the choice of setting your image with 'Progressive Scan'. This means the image is loaded in stages – a poor quality version first, then gradually improving. In our image, this leads to a file size reduction. When it doesn't, click 'Optimize' for a quick fix.



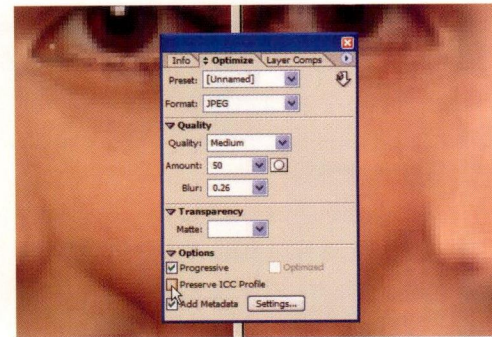
12. Metadata settings

Next up, click on the 'Settings' button alongside the 'Add Metadata' option. In the window that appears, you'll notice that there are an array of options for including metadata with your image. You'll even find a collection of presets to make it easier to choose a setting – leave it on 'Custom' and click 'OK'.



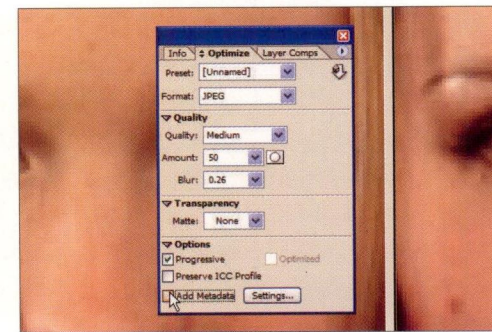
14. Save the optimised file

Now that we've sorted our JPEG and turned it from 6.5Mb into 55Kb, all that's left to do is save it out. Go to the 'File' menu, then make sure you choose 'Save Optimised As' – choosing the standard 'Save Optimised' will write over your original.



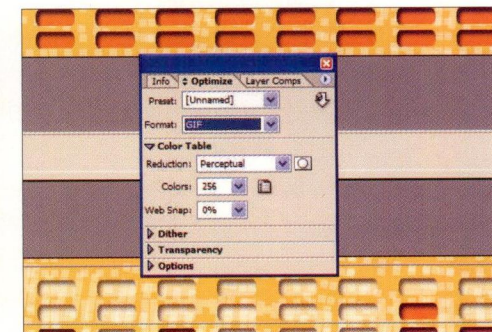
11. ICC profile

The 'ICC Profile' option is probably one of the most high-end of the optimisation features in Photoshop. It lets you maintain the colour profile of your monitor within the image, instead of taking on the colours used in your visitors' browsers. We want our image to be as universal as possible, so leave it unticked.



13. Delete the metadata

By default, ImageReady turns on this metadata with every image. This new feature is included primarily to make it easier for you to scan through images on your hard drive using the 'File Browser'. This is no use whatsoever for your visitors, so turn it off and shave a bit more off the size.

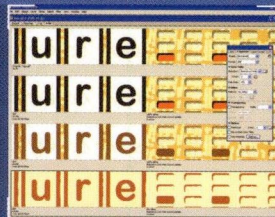


15. Optimising logos

Import 'logo.psd' from the cover CD, which is the perfect example of the kind of logo you find on the Web. Once it's loaded, change your palette setup as before, so that you only have two views of your image and the 'Optimisation' palette showing.

Get more with four

In this workshop, we've made extensive use of the '2-up' view in ImageReady, which allows you to see the original and optimised versions of your image simultaneously. Taking this a step further, the program also contains a '4-up' feature. As the name suggests, this splits the screen into four parts, and shows you three different optimised versions of your original image. This is especially good for demonstrating the deterioration of quality as you gradually increase the compression factor.



■ This shot shows the difference between eight, four and two colours on the same image

SAYWHAT?

DITHER

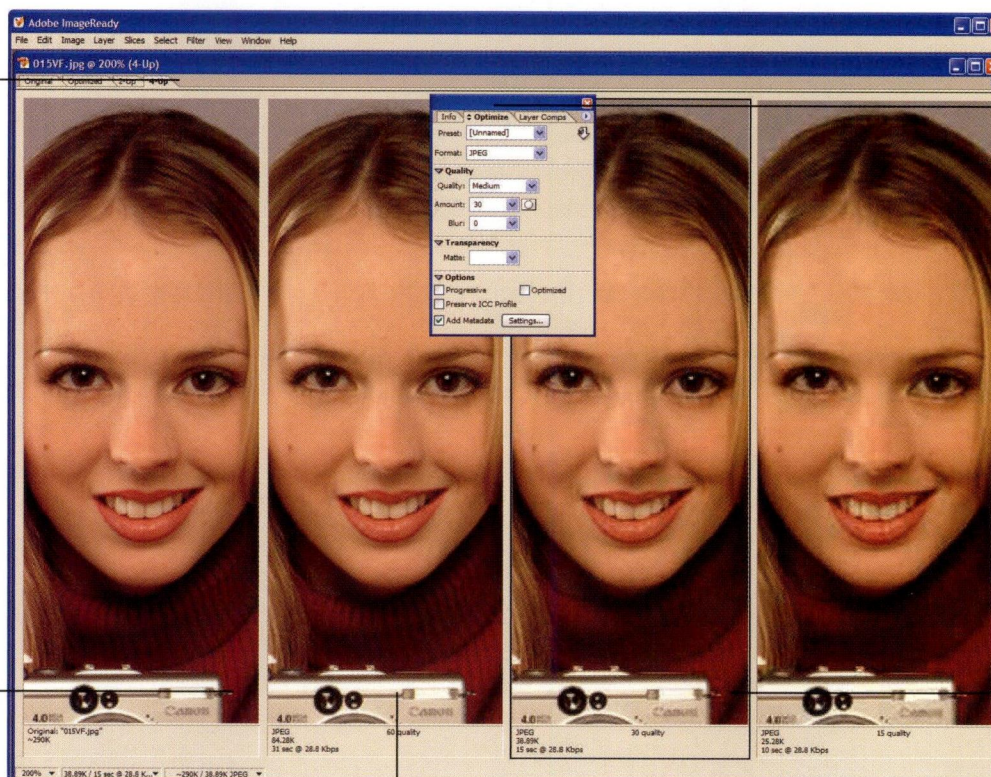
This refers to the method by which ImageReady attempts to mimic the original colours of your image using a blend of those available in the optimised colour palette. This makes for a much more impressive final result in terms of display, but also signals a huge hike in file size – sure, everything remains within your colour palette, but the additional hues created by dithering will always bump up your file size.

A different view

Discover how you can get a whole lot more out of ImageReady simply by changing the way you view your optimised and original images

Viewing options

This simple tab lets you configure the way that ImageReady displays your images. Clicking on either '2-up' or '4-up' will allow you to see both optimised and original images at the same time



Optimization window

The Optimization window contains all of our settings to compress the JPEG as we choose. Notice that the settings here relate to the image second from the right

Original image

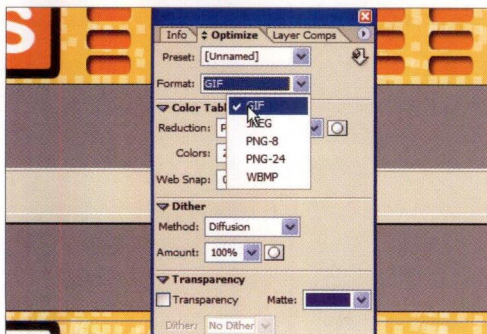
You can choose to view just the optimised image, but we always find it far more useful to see the original alongside any changes we've made

Variation one

As we've set our quality level to '30', and we've asked ImageReady to display three optimised versions, it's doubled the setting in this first variation

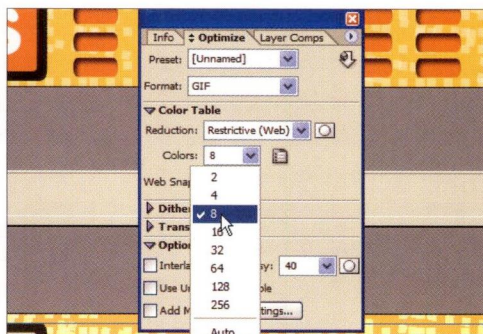
Variation two

The '15' setting here is half of what we chose, and allows us to see quite clearly that this level would be unacceptably low for our needs



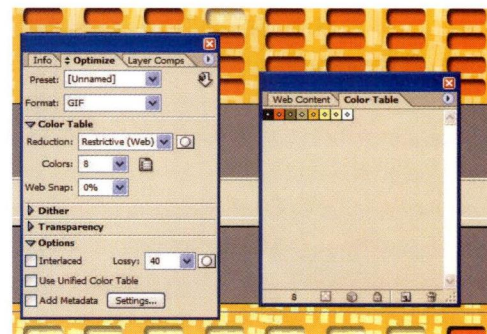
16. Choose a format

While picking a format was easy with our photo, it's slightly trickier with a logo. Both PNG and GIF formats are relevant here – PNG is almost like a cross between JPEG and GIF, but in our case the GIF format provides the best results, so choose this one.



17. Choose your colours

Next up, you should choose the number of colours contained within your image. While 256 colours always gives the best display, it also leaves you with a monster file size. Try several settings until you find one that offers best results. Try 4 then 8 – and you'll see how easy it is.

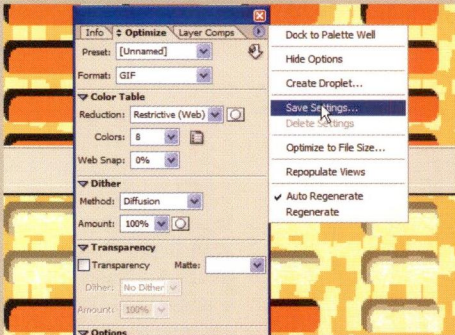


18. Bring up the colour palette

If you really want to go to town with regards to your colour usage, the button next to the 'Colors' setting allows you to bring up a palette showing the exact colours used in your image. You can even tweak each of these if you're struggling to get the perfect mix.

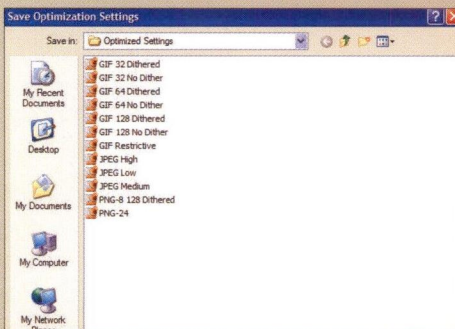
INTRODUCING IMAGEREADY CS

Storing settings for future use



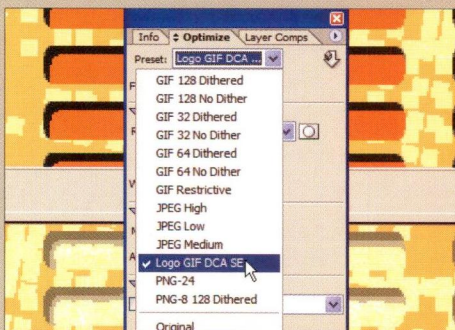
Easy saving

After you've spent ages assembling a cast of optimisation settings that work perfectly for an image, you don't want to have to configure each option again when you bring in the next file. Thankfully, ImageReady lets you save settings very easily. Click on the arrow, then choose 'Save Settings'.



Enter a name

ImageReady will open the default folder where optimisation settings are saved, ready for you to store your options in the same place as the existing ones. Enter a name for your settings – make it obvious what the settings relate to, as this will make your life a lot easier later – then click 'OK'.



Easy access

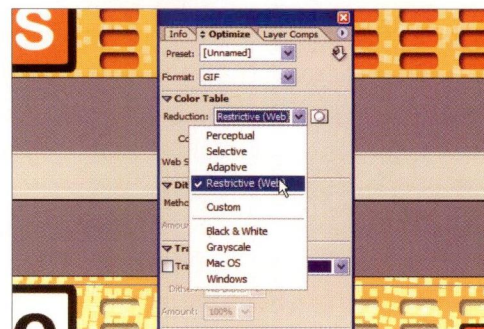
With your settings saved, you can access your optimisation profile any time you want by clicking on the arrow next to 'Preset', and picking your settings from the drop-down menu. Build a collection of personalised settings, and you can call upon an array of optimisation tools whenever you want.

Continued...



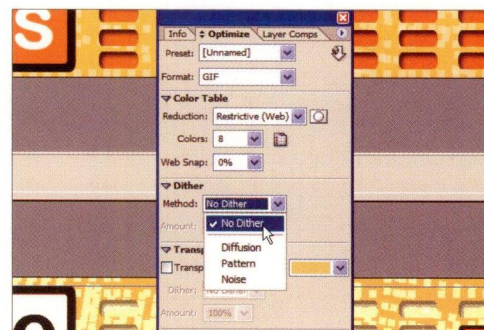
19. Pick a reduction

Above the colour settings, you'll find a menu devoted to reduction. Basically, this section allows you to configure the palette used for your GIF image. The default setting, 'Perceptual', is based upon the way the human eye sees colours, and provides the most realistic option.



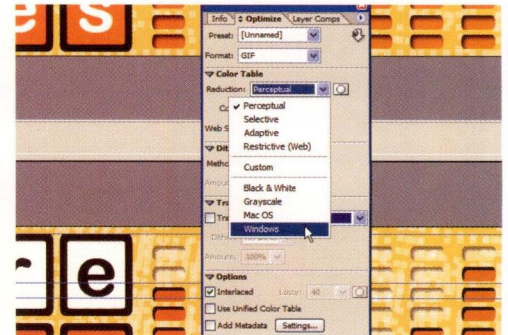
21. Choose a palette

In the end though, we would always suggest that you choose 'Restrictive (Web)'. The simple fact of the matter is that we're going to use our image on the Web, and this option allows us to be sure that every computer in the world viewing our image will see it in the same way.



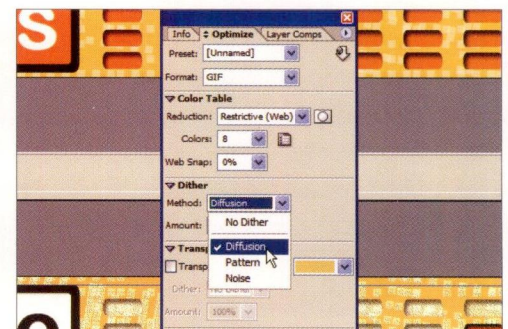
23. No dither please

When it comes down to it though, we're trying to create an image that's as small as possible. Dithering is one of the biggest drains on file size, so we'd suggest dropping this option and accepting that there may be the odd pixel or two that appears ragged to some people.



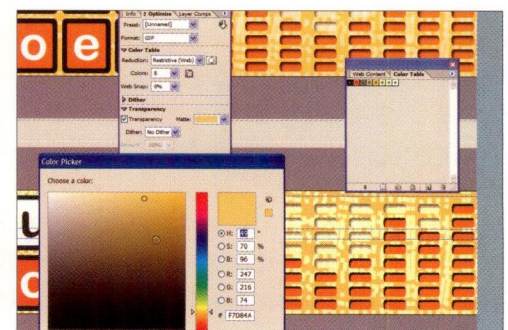
20. Other options

As you move down the list, you'll find an array of options. 'Adaptive' for example, defines the palette according to the colours used in the image, and 'Custom' lets you define your own colour palette entirely, while Windows and Mac use the standard 256-colour palettes within these operating systems.



22. Dithering

As you reduce the colour palette for your image, you lose much of the subtlety that was there. Dithering corrects many of these problems, creating the illusion of colours blending together. Each of the settings lets you define an alternative dithering method – try each one and see how it affects your file size.

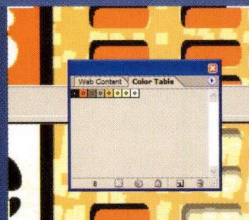


24. Transparency

This function allows you to specify that your image should have a transparent background. Remember, though, that this only applies if your background layer is turned off in the first place. If the option is unticked, ImageReady will automatically apply the selected 'Matte' colour as a background.

Palettes explained

You might wonder why we've gone to all the trouble of choosing a reduction method, and thereby picking a 256-colour palette to work from, when we're only saving our image out as an 8-colour GIF. The reason is we're actually setting the palette from which our eight colours can come. Using the Web-safe palette, you may find the eight colours you've sought out aren't part of the 256 colours assigned to the Web. This enables you to subtly change your eight colours, rendering your image Web-safe without altering it too much.



By choosing a reduction method, you can change your colours without altering the image too much

If you're after further advice on optimising your images within either Photoshop or ImageReady, you could do worse than check out www.dreaminfinity.com. The excellently named Sticky Sauce (www.stickysauce.com) has a section devoted entirely to ImageReady, which should satisfy your thirst for graphics knowledge for the time being. For those of you who are simply keen to learn more about the techniques behind optimisation, check out www.elated.com/tutorials/graphics/photoshop/save_for_web.

The Optimization palette revealed

Once you've got to know the tools within the 'Optimization' palette, you can look forward to a lifetime of easy compression. We talk you through the basics here

Preset settings

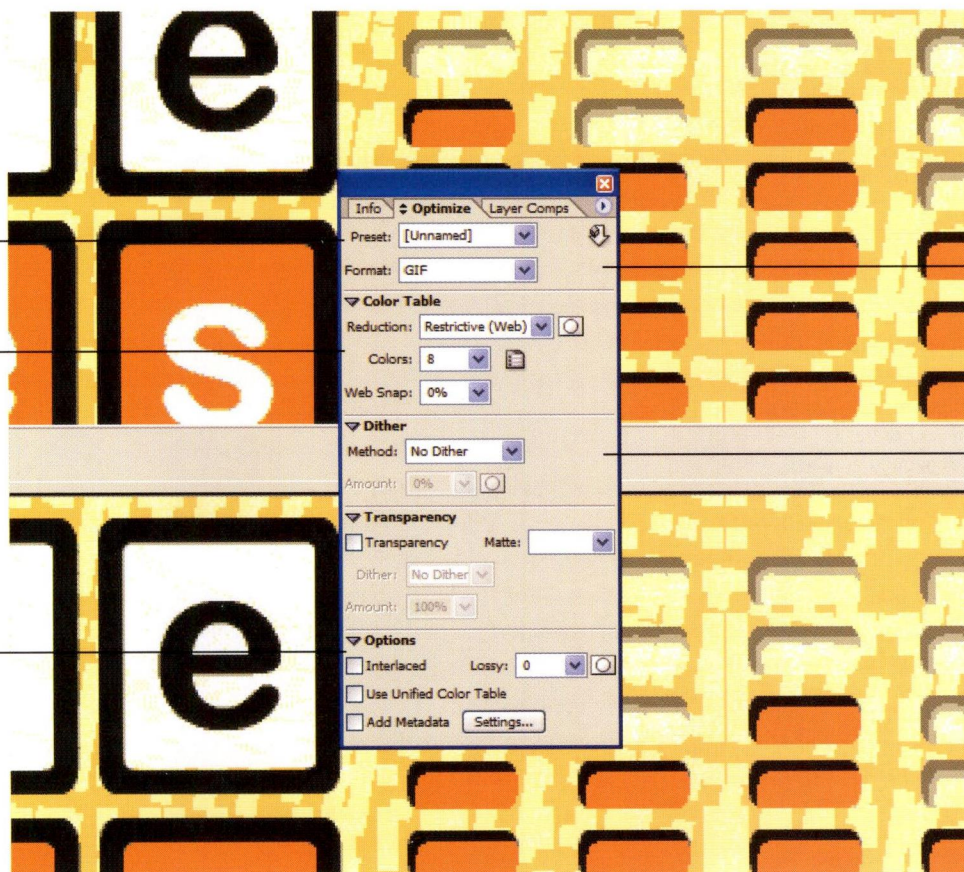
You can call upon a collection of built-in settings that will give you decent results quickly. Alternatively, you can save your settings here for later use

Color Table

Pick from a broad range of colour palettes here (all based around 256 colours), then tell ImageReady how many colours your GIF should be bequeathed with

More options

The bottom part of the palette enables you to turn 'Interlacing' on and alter the 'Lossy' settings, which is the most significant factor in cutting down your image size

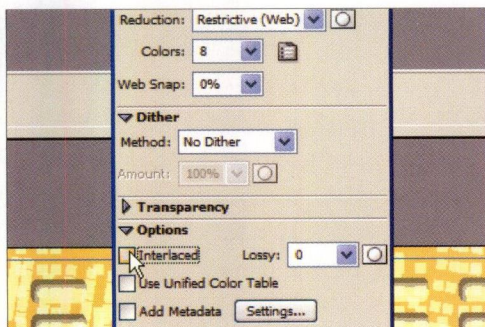


Pick a format

This is the most important aspect of the Optimization window, as it allows you to tell ImageReady which file format to use

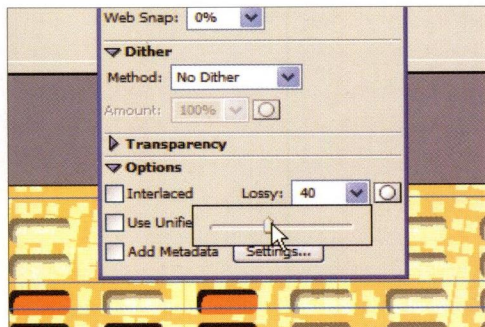
Dithering about

If you find your image suffers through your colour choice, assign a dithering option to the picture to give the impression of blending the colours



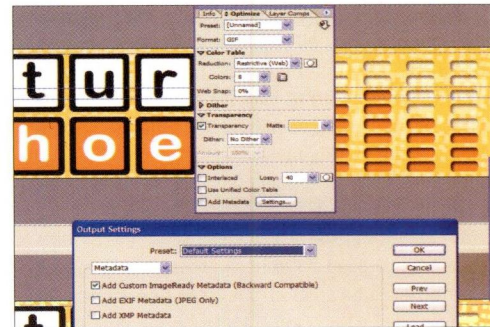
25. Load it slowly

Years ago, when everyone had a 28.8Kb modem, the average image would take up to a minute to download. The 'Interlaced' option was introduced to load GIFs bit by bit, so visitors could see the image before it was fully loaded. This is no longer necessary, and 'Interlacing' only adds to file size, so ditch it.



26. Losing out

The 'Lossy' function is one of the most important for GIFs in ImageReady. It essentially removes detail from the image – set it too high, and you'll end up with a mess, but used effectively this can make a huge difference to file size. Once again, experiment with the option, but we've gone for '40'.



27. Ditch the data

Once again, get rid of the metadata stored on your image because this only takes up valuable space. Having done this, you're now ready to save your GIF to disk – again, make sure you 'Save Optimized As', or you run the risk of overwriting your original image.

CREATE YOUR OWN PIXEL ICONS

We show you how to add characters to your Web site by designing your own pixel art buttons and icons with the vastly underrated Pencil tool



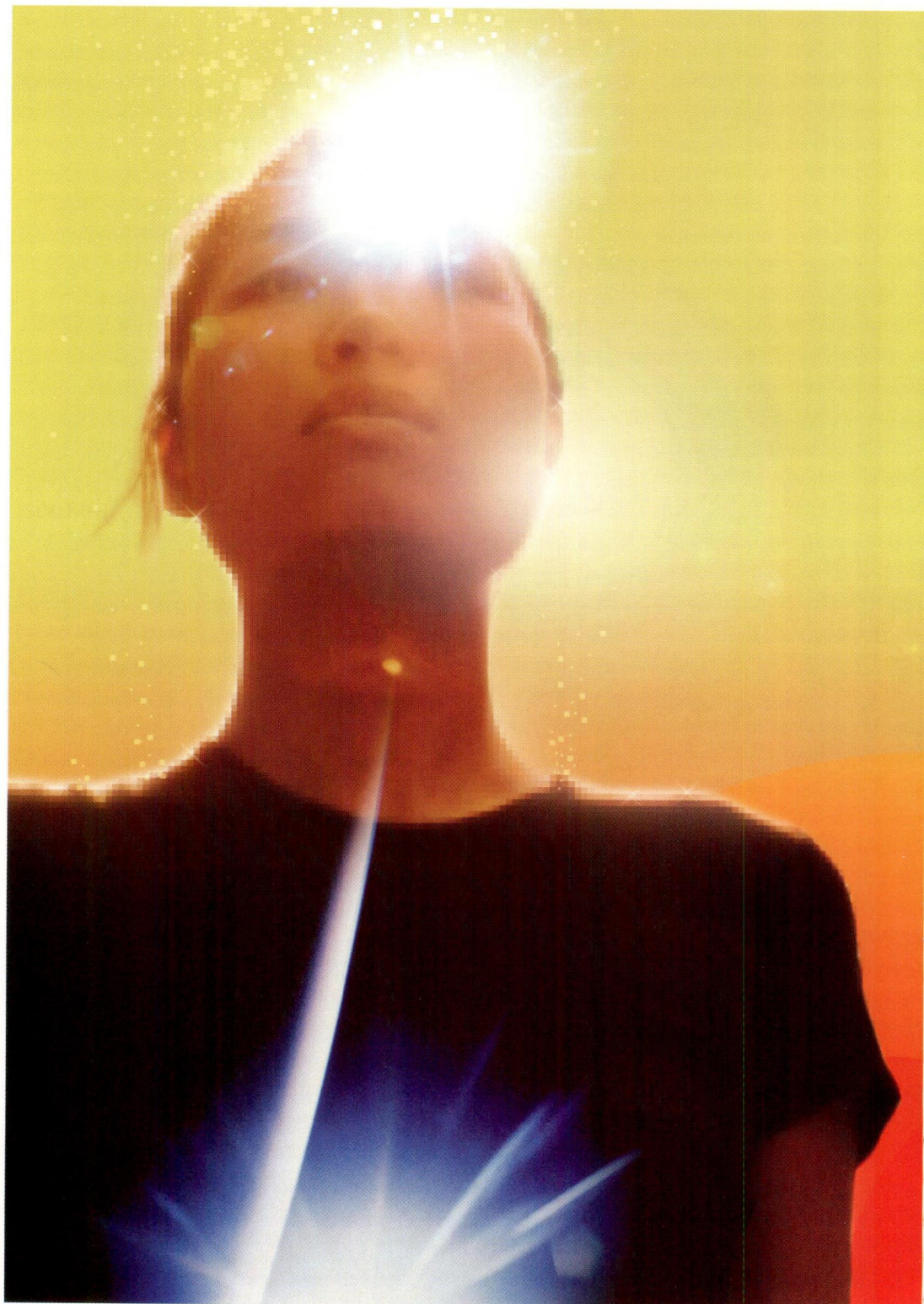
Even though broadband is on the increase there's still a case for saving bandwidth where you can. Anti-aliasing, the slight blurring effect on diagonal lines and curves to remove the stepped effect of bitmapped graphics, can result in more colours and image complexity, which increases file size. Remove this and you can shave kilobytes from your images, so your uncle who lives in Siberia and connects to the Net with his 28K dial-up account can still marvel at your Web prowess.

Even when bandwidth isn't an issue, there might be aesthetic reasons for choosing a pixel art route, and saving a few kilobytes here and there is just a happy by-product. Creating worlds with no anti-aliasing and a limited colour palette might remind you of your first Amiga computer, ZX Spectrum or Commodore 64, where the games designers found innovative ways to sidestep the limited graphics capabilities. Early Windows and pre-Macintosh OS X interfaces also utilised a pixel art approach to their icons and screen furniture so that users with only 256 colours could use the operating systems.

It was these poor users who encouraged the development of the Web safe palette, the limited spectrum of colours all Web designers were encouraged to use to make sure their sites weren't dithered into monstrous patterns of pixels. But with colour screens on mobile phones boasting thousands of colours, there's really no reason to rely on limited palettes unless you're going for a retro look or making an artistic statement.

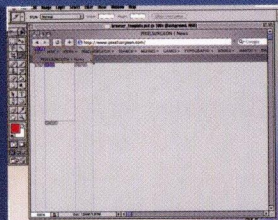
The aim of this tutorial is to show you the inside scoop on how pixel art icons, buttons and other Web bric-a-brac can be created. The main tool in your armoury will be the 'Pencil' tool with the radius set to a single pixel. There will be many who've never even considered the possibilities of the 'Pencil' tool, let alone used it, so now is the time to make friends with this underrated tool.

So, buckle up and zoom in (this is detailed work) as you journey into the mysterious world of the pixel... ■

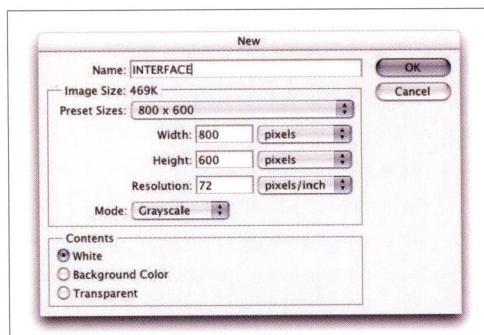


The Slice tool

When you use the 'Slice' tool, you're dividing the Photoshop document into functional areas. When the document is saved for the Web, each slice is saved as a separate file, which can contain its own optimisation settings, links, rollover effects and animations, together with the HTML code that binds the graphics together as a Web page. Adjacent slices can be saved independently as JPEGs, GIFs or even PNGs. Slices can be saved in two ways: as a table or as floating layers.

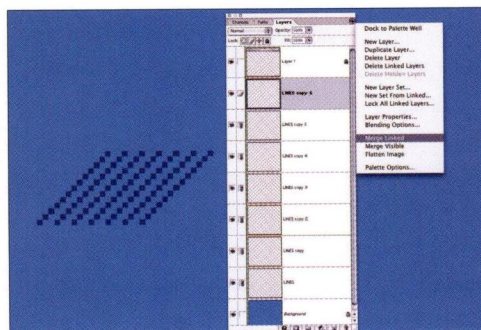


JASON ARBER is Design Director at Green Cathedral Plc and co-creator of the hugely popular Web portal, Pixelsurgeon (www.pixelsurgeon.com). After completing a degree in Photography, Film and Video at the University of Westminster, Jason went on to become an award-winning print designer before the lure of the Net became too great.



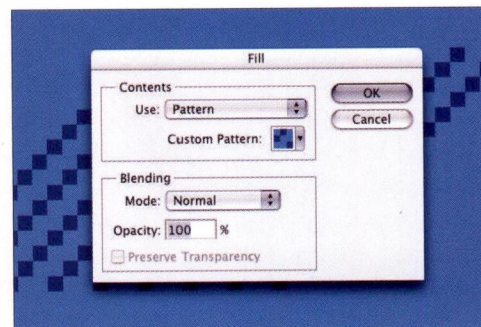
1: Open Photoshop

Open Photoshop and create a new blank canvas ('File', 'New'). The makers of Photoshop have thoughtfully provided a number of preset templates aimed at Web designers, so choose the '800' x '600' option, with a resolution of '72' pixels per inch and click 'OK'.



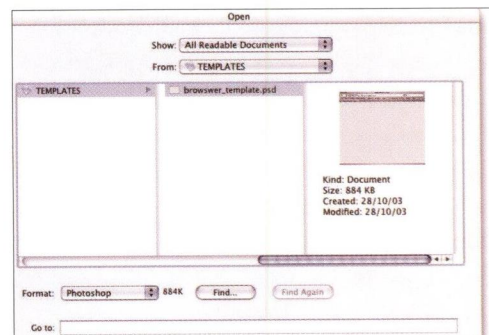
3: Create the background

Fill the background with blue ('Edit', 'Fill'), create a new layer (click the icon at the bottom of the 'Layers' palette), use the 'Pencil' tool to set a one-pixel width, and draw a diagonal line. With the 'Move' tool, Option-drag (Mac) or Alt-drag (Windows) to copy the layer several times, two pixels apart.



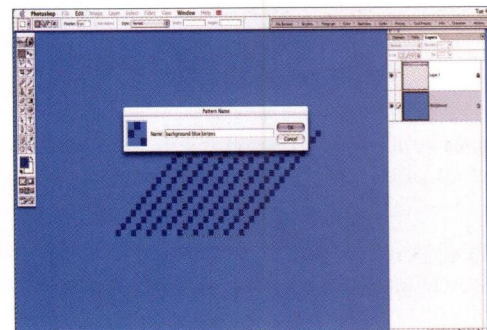
5: Apply the pattern

Flatten the image with the exception of the browser chrome (link the layers and choose 'Merge Linked' from the fly-out menu). With the background selected, choose 'Fill' from the 'Edit' menu. From the 'Use' drop-down menu select 'Pattern' and choose your creation from 'Custom Pattern'.



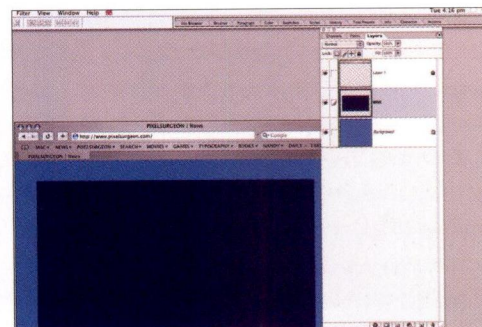
2: Alternatively...

To cut out some of the initial stages there is a Photoshop template ('browser_template.psd') on the accompanying CD. It includes browser chrome to help you visualise what your artwork will look like in a browser. You can create your own by taking a screenshot of an open browser window.



4: Stripey tile

Use the 'Rectangular Marquee' tool to draw a selection over the pixels (hold down 'Shift' to constrain it to a square). Make sure that the selection will tile correctly. From the menu define the pattern ('Edit', 'Define Pattern'), give it a name and click 'OK'.

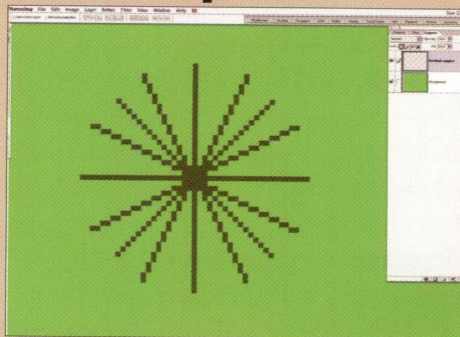


6: Create a stroke

Create a new layer and with the 'Rectangular Marquee' tool draw a box which sits in the middle of the screen and fill with a blue colour ('Edit', 'Fill'), or alternatively Option-backspace (Mac) or Alt-backspace (Windows) with the foreground Toolbox colour chip containing the correct colour.

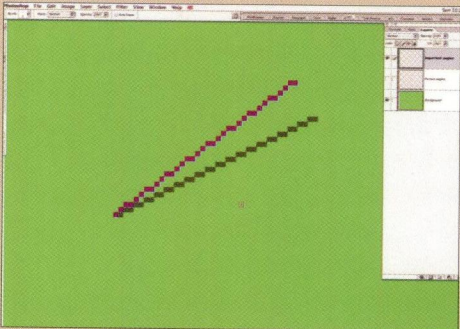
CREATE YOUR OWN PIXEL ICONS

Different angles and shapes



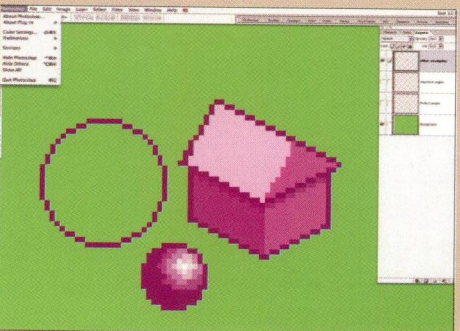
Get the correct angles

There are 16 ideal angles that the pixel artist should try and constrain all isometric shapes to. The simplest correspond to 90° and 45° angles, while the 'two-pixels along, one-pixel up' angle is approximately 27°. These lines are the most visually pleasing and should cover most situations.



Make them straight

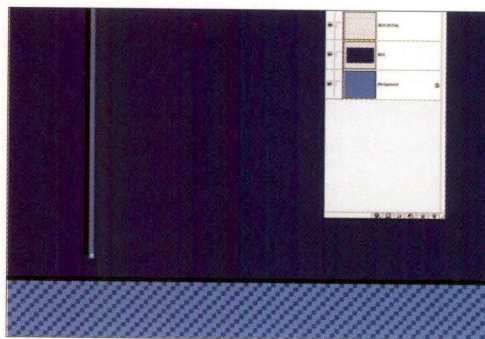
Lines that deviate from the 16 ideal angles tend to have a rough, staggered appearance and should be avoided if possible. To draw a line between two points, just hold down the 'Shift' key and click with the 'Pencil' tool on the two end points, and Photoshop will draw the straight line for you.



Other shapes

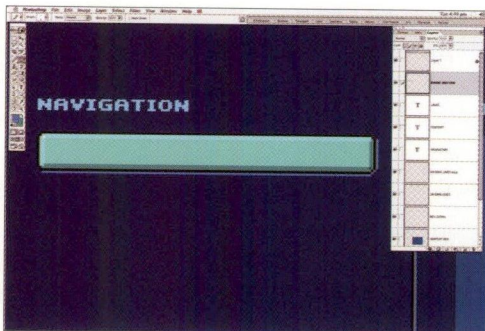
There are situations when you have to use angles other than the ideal ones: circles and sloping roofs are just a couple of examples. Cities and regular geometric shapes don't present too many issues, but problems can set in when trying to draw natural shapes such as trees and rocks.

Continued...



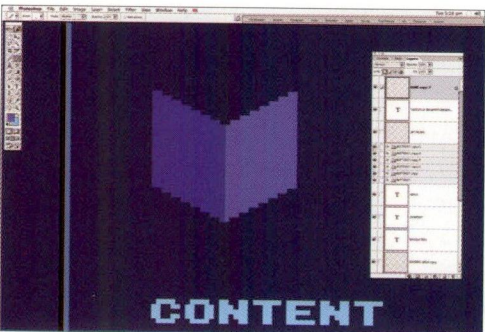
7: Pseudo 3D dividing line

Use the 'Pencil' tool once again to set a width of one pixel, and draw a dark vertical line in a new layer. To create a pseudo 3D effect, draw a line to the right of it in a lighter blue, and at the bottom draw an additional pixel in an even lighter blue.



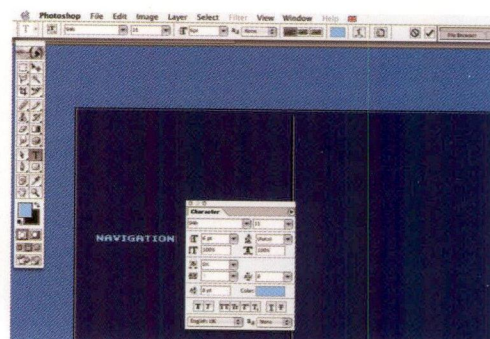
11: Highlights and shadow

With the 'Pencil' tool still selected, begin to add a two-pixel wide highlight to the inside of the button on the left and top edges. On the bottom and right edges draw a shadow in a slightly darker colour. Hold down the 'Shift' key to draw straight lines between clicks with the Pencil.



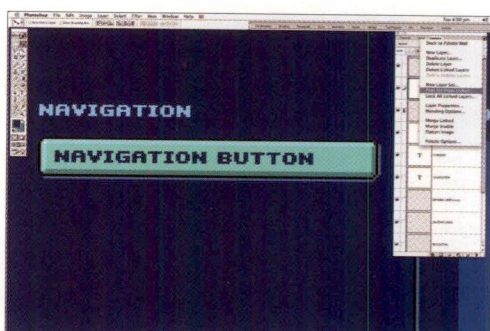
15: Isometric fun

By building a 3D box, you'll have your first taste of isometrics. The secret to creating diagonal isometric lines is to go two-pixels along and one-pixel up, and with this in mind, create the outside faces of the box using the Pencil tool, making sure one face is lighter than the other.



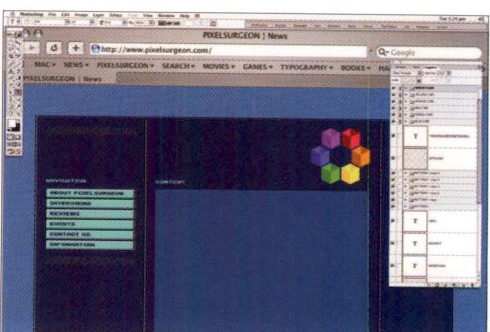
8: Non anti-aliased type

Start adding some of the titling and navigation elements to your site using a non anti-aliased typeface. If you have none in your font collection, there are plenty of places on the Internet where they can be downloaded for free. See the Web Resources sidebar.



12: Add the button text

Again, using a non anti-aliased font, write some temporary text for the button. To ensure the text doesn't look fuzzy, make sure the anti-aliasing method in the Options bar is set to 'None'. Link all the button elements together and create a new set from the 'Layers' palette fly-out menu.



16: Multi-coloured boxes

Duplicate the layer and then rotate it by 180°. Drag the layer behind the first one. Nudge the back layer up until it creates the impression of a box and merge into a set. Duplicate the box set five times and arrange into a hexagon. Colour the boxes to create a visually attractive spectrum.

SAYWHAT?

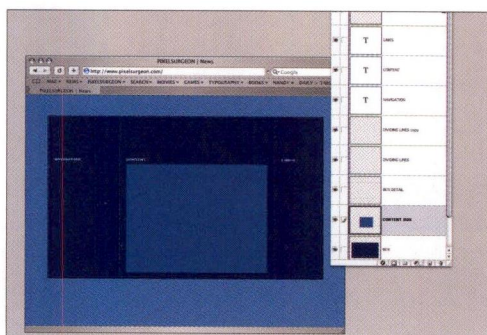
ANTI-ALIASING

Anti-aliasing was invented in the Seventies to tackle the problem of how to create graphics on a computer monitor without getting the stepped effect caused by different colours and low resolutions. A square displayed on a computer screen doesn't need anti-aliasing if its edges are flush with the pixels, but the problem arises when the monitor has to render a curve or diagonal line. The solution is to calculate the value of adjacent pixels to create the impression of a smooth line or curve.

CREATIVEPRIMER

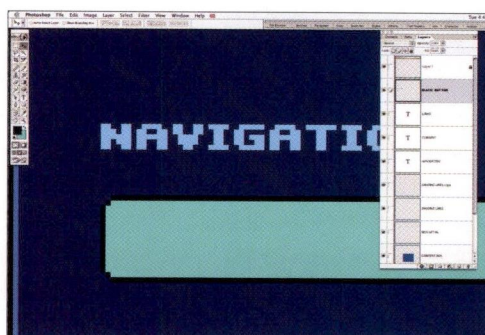
Which format?

There is often a great deal of confusion over which file format to use when saving for the Web. The PNG file format is limited in its popularity, so the choice is usually between JPEGs and GIFs. JPEGs are ideally suited to continuous tone images such as photographs, while GIFs are suited to conditions where there are limited colours (GIFs can only save 256 colours) but require a crispness lacking in JPEGs. Buttons are usually best saved as GIFs.



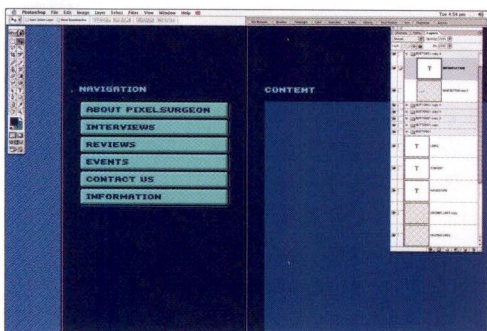
9: Content area

Simply adjust the titles and dividing lines until you're happy with them, and then with the 'Rectangular Marquee' tool create a new box in a mid-blue colour. Once you've completed this, it will become the content area for your new Web site.



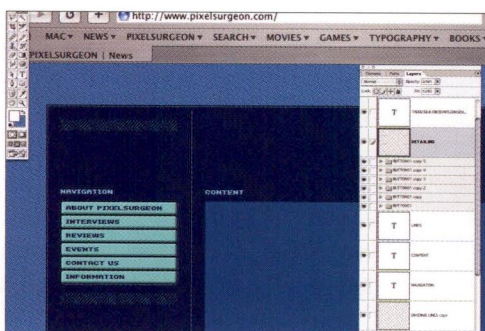
10: Basic button

On a new layer, use the 'Rectangular Marquee' tool to create a long, thin button shape. Fill with a teal colour and then, using the 'Eraser' tool set to the 'Block' option, zoom in and knock a pixel off each corner to create a rounded pixel look. Keyline the button in black using the 'Pencil' tool.



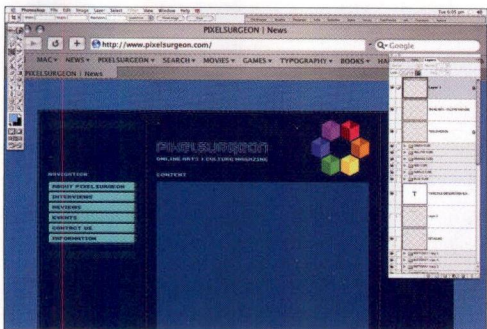
13: Duplicate buttons

Now that the button is in a set, you can Option-drag (Mac) or Alt-drag (Windows) the button set to duplicate the button, just like a flattened button, but with the advantage of editable text. Rename the buttons to reflect the different areas of your site.



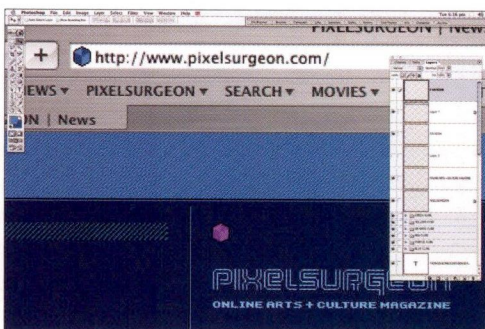
14: Detail your site

By creating diagonal lines two pixels wide with the 'Pencil' tool - light blue on one side and dark blue on the other - and then duplicating them two pixels apart, you can create a kind of visual non-slip grip, which is great for adding texture and interest to your site.



17: Logotastic

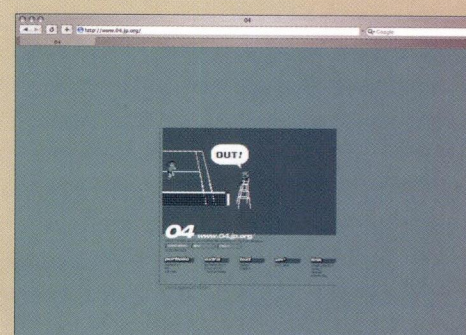
By now you should be used to the 'Pencil' tool, so using it set to a width of one pixel, create a logo for your Web site. You can use the same non-anti-aliased typeface and add some text below your logo, explaining briefly what your site is about and what they can expect.



18: Build a Favicon

'Favicons' are the little 16x16 pixel icons that appear in address bars and 'favourites' listings, which give a tiny visual clue to the site. Using the box technique, create a tiny version of the box that doesn't exceed 16 pixels in either direction.

Web resources



Name of site: 04

URL: www.04.jp.org

Great distinctive pixel design from this Japanese site, but best of all it has a collection of some of the best free pixel fonts on the Web designed by site creator Yuji Oshimoto.



Name of site: Pixelzentrum

URL: www.pixelzentrum.de

Maik Sander created this site as a portfolio of his pixel distractions and it has grown from there. A great example of pixel art with many projects you can contribute to.



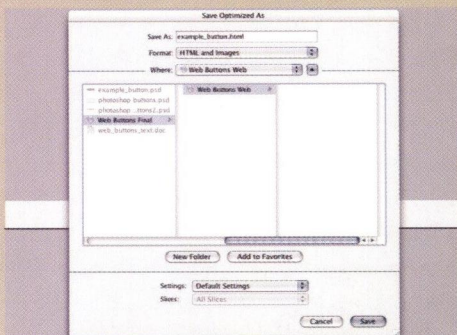
Name of site: eBoy

URL: www.eboy.com

German pixel pusher Boy has created a host of intricate pixel-based designs for several high profile clients. Check out the continually growing eCity to see his best work.

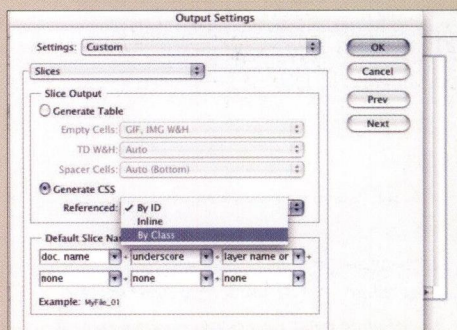
CREATE YOUR OWN PIXEL ICONS

Explore the options



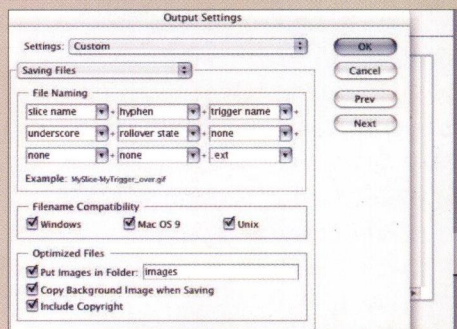
Export your creations

In both Photoshop and ImageReady there are a wealth of options when it comes to exporting your images. Some of these are designed to allow you to slap your creations on a server immediately, some are designed for better integration with applications such as Adobe GoLive.



Advanced options

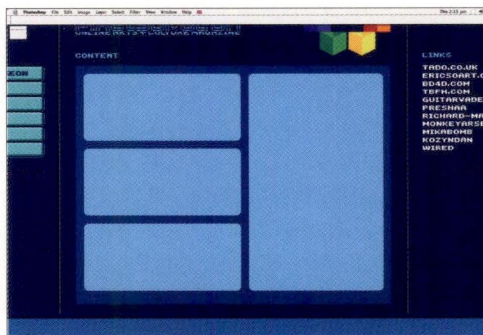
You can access the 'Advanced' options from the 'Default Settings' drop-down, but you override that behaviour in the 'Slices' sub-menu to generate CSS instead, with the option to choose how the images are referenced.



Name picking

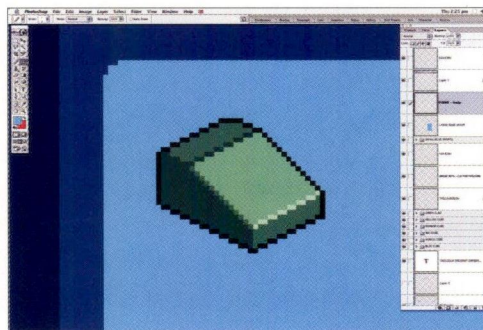
You can also specify how files are saved via the 'Saving Files' sub-menu. You can create complex filenames which indicate the trigger and rollover state within the text of the filename itself. You can also decide if you want the images saved in a separate folder, and what to call the folder.

Continued...



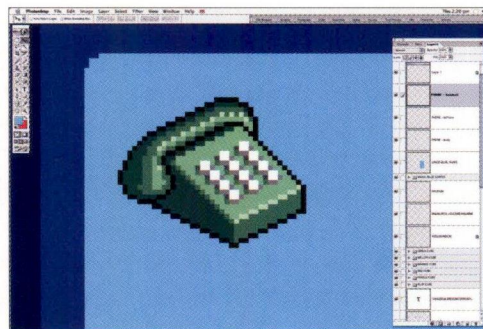
19: Sub-dividing the Content box

Select the 'Rectangular Marquee' tool and create several smaller boxes in a lighter blue. Use the 'Eraser' tool and set to the 'Block' option, where you can trim several pixels from the corners of each of the new boxes to create the impression of rounded corners.



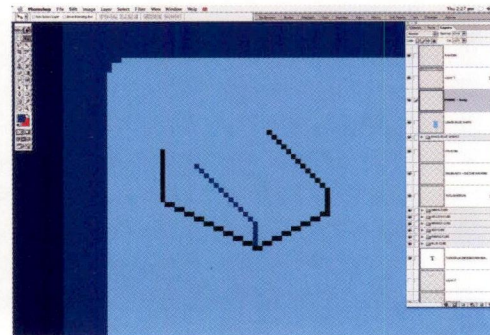
21: Add colour

Use the 'Pencil' tool to colour in the phone's basic shape. Use a mid-toned green for the front and top of the phone, a light tone for the sloping surface and dark tone for the side. Avoid using a black line to distinguish where the surfaces meet, but use tones of green instead.



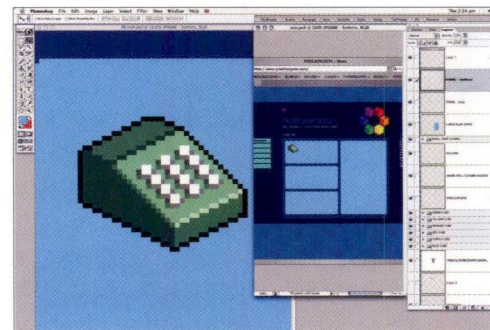
23: On the receiving end

Now comes the difficult bit that sorts the wheat from the chaff: the telephone's receiver. It may help to create the receiver on a different layer so that mistakes can be easily disposed of. Mastering the curved mouthpiece and correct shadows and highlights may take a few tries to get right.



20: More complex isometrics

In a new layer over the top Sub-content box, start sketching out the basic shape of an old-style telephone using the 'Pencil' tool. Where the front face of the phone slopes upwards, draw the pixels in a 45° angle. Don't worry about the detail – concentrate on getting the basic shape right.



22: Push my buttons

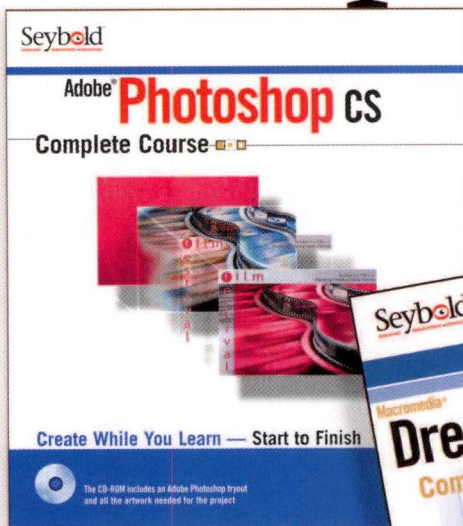
Add the phone's buttons with the 'Pencil' tool. When working at increased magnifications the pixels can look odd. If that's the case, open a new window ('Window', 'Documents', 'New Window') and set it to 'Actual Size' ('View', 'Actual', 'Pixels'). You can work in one window and see the results in the other.



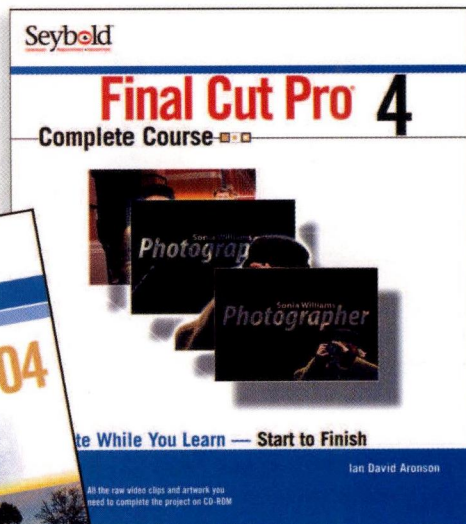
24: Put it all together

Once you get the phone right, you're well on your way to becoming a pixel art genius. There's nothing to stop you from throwing the rest together, and showing off your new skills by creating some complex pixel imagery with the 'Pencil' tool.

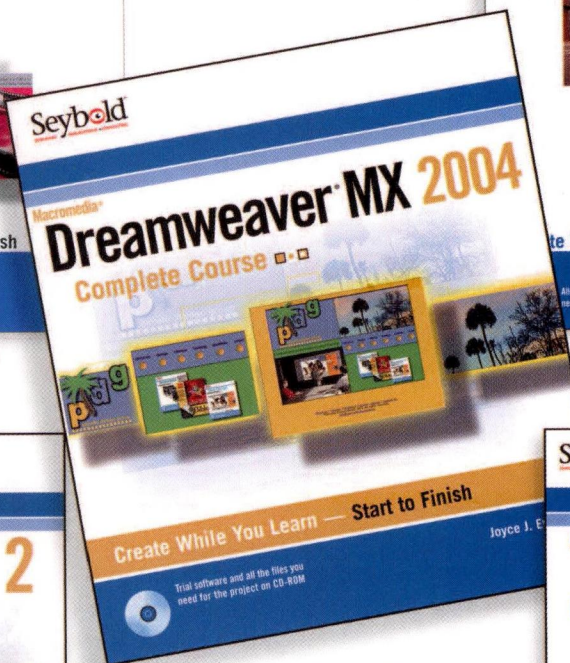
Whatever your design needs, we've got a Complete Course...



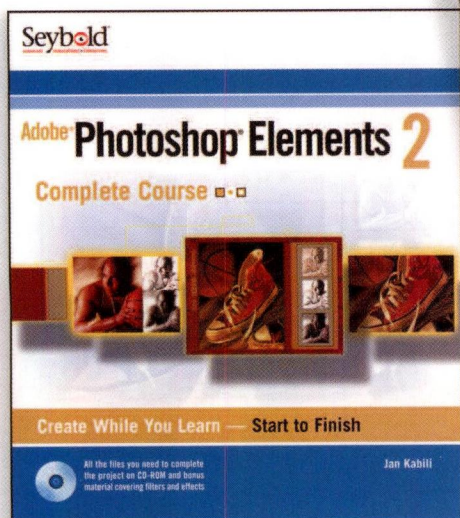
0764541757 - £31.95



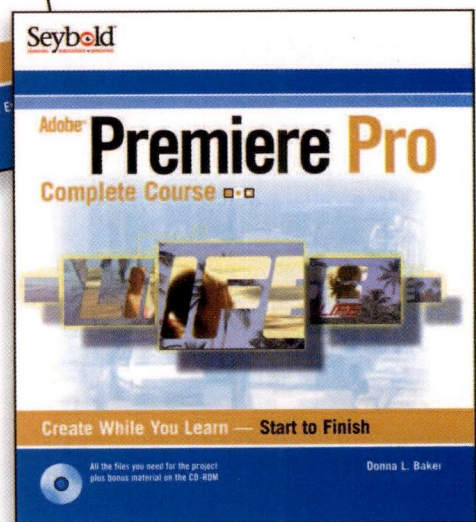
0764525913 - £29.95



0764543040 - £29.95



0764540939 - £31.50



0764543490 - £29.99

Wiley and the Wiley logo are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates in the United States and other countries. All other trademarks are the property of their respective owners.

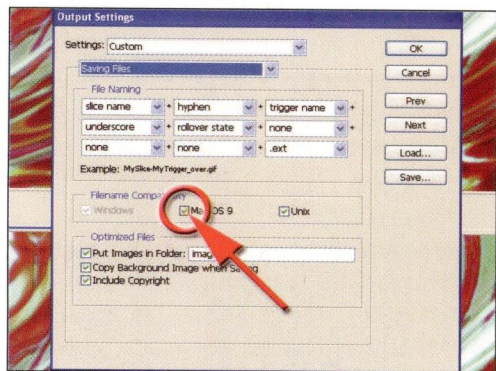
 **WILEY**
Now you know.

wileyeurope.com

KNOWLEDGE BASE:

ALL YOUR PHOTOSHOP QUESTIONS SOLVED

STRUGGLING WITH BATCH CONVERSION? NEED THAT EXTRA BIT OF EXPERTISE TO GIVE YOUR WEB GRAPHICS A LIFT? FRET YE NOT, WE HAVE ALL THE ANSWERS



■ The bane of your long filename compatibility problems comes from this sneaky little tab

PROBLEMS WITH TRUNCATION

Q I am trying to save my files for Web graphics and buttons in Photoshop CS, but I keep getting a message saying 'Your filenames are being truncated to make them compatible with Macs'. The pop-up gives some vague instructions, but I can't find what it's referring to and it's messing up all my Web buttons – have you got any clue what to do?

Simon Ceilig

A Macintosh computers can only have filenames that are 31 characters long or less – not a lot of good if you have a long filename, which can often happen on Web sites. The instructions Photoshop gives you are actually part of the ImageReady interface, because the optimisation tools in Photoshop CS are now ported directly from ImageReady. When you go to use the 'Save slices' option in ImageReady, unchecking the 'Make compatible with Mac' option will only work once. However, we've found a solution completely by accident. The 'Save for Web' interface has a sneaky little arrow which allows you to turn off the 'Make compatible with Mac' setting for good!

FILTER CONCERNS

Q I'm new to digital imaging and recently got hold of a copy of Photoshop Elements. I like using the filters, but it always seems a bit hit and miss as to the results. Any tips?

Bert Bord

A We had a question a while ago about different fonts, and suggested printing variations of each font out in order to create an instant reference guide of what they look like. You can do the same for graphics effects and filters by making an A4-sized

document (210mmx297mm) at 300dpi and then copying a small image so three fit in a horizontal line per page. Apply the same stylistic effect to each row, with the default settings in the middle, the bottom setting of the filter to the left and higher settings on the right. Make a few sheets of this using a wide selection of the filters, and in the future you'll have a visual guide. After a while you will know what the different effects do and won't need these time-saving sheets any more.

One other point that's worth noting is that Adobe has actually integrated one of these test sheets in Photoshop CS. Once you select a filter, a browser window will appear with all the different effects applied to the same image.

LINUX LOVER

Q I (for my sins) run the Linux Operating System and can't use Photoshop, although I still love learning the techniques you show me in your magazine. Are there any bits of kit I could use to get Photoshop/Paint Shop-style results?

Paul Cast

INSUFFICIENT SPACE

Q Is there an easy way to manage my Photoshop workspace? I have quite a small screen, and it's a right pain when I need to work with large images.

James McMahon

WWW.GIMP.ORG will soon get a facelift!

The current design of this site was created more than five years ago. It looked good at that time, but both the web and the GIMP have evolved since then. Many talented contributors have worked on a new design and re-organized the pages in order to make it easier for you to find everything you need to know about the GIMP. We will soon replace this site by a new version, which is currently in beta testing. You can [have a look at it now](#) and report any problems to the [webmasters](#).

What is the GIMP

The GIMP is the GNU Image Manipulation Program. It is a freely distributed piece of software suitable for such tasks as photo retouching, image composition and image authoring. This site contains information

■ Bring out the Gimp to get Photoshop-style results when running Linux

PHOTOSHOP

A The easy answer is to either get a larger monitor or change your screen resolution to something like '1024x768'. Unfortunately '800x600' just won't cut it with applications these days. If neither of those options is viable, your best bet is to simply work out which tool palettes you need, and then close the rest.

Arrange them in a suitable way and go to 'Windows', 'Workspace' and 'Save Workspace'. Name it something obvious and use it whenever you need. Do the same for, say, Web pages, print work and so forth, and you should find that you have enough space to work in.

SAME OLD, SAME OLD

Q I've been fiddling with Photoshop 7.0 and it seems to me that the 'Healing Brush' is exactly the same as the old 'Cloning Stamp', apart from the fact that it has a plaster as an icon. Am I missing something, or is there a proper use for it?

Jessica Mink

A Although the 'Healing Brush' is indeed similar to the 'Clone Stamp', it has a very important difference. The 'Healing Brush' doesn't just take a

patch of pixels from one region and plaster them to where you next click your mouse; it allows you to copy texture, lighting, transparency and shading along with the pixels. Instead of doing 20,000 different clicks with your mouse trying to blend in a gradient or shaded area of an image, you can perform the task much faster.

BRUSH UP YOUR ACT

Q I have been experimenting with natural media in Photoshop, but the 'Brushes' selection falls short when it comes to proper digital artwork. I am using a pressure-sensitive graphics pad and a top graphics card – do you have any ideas on how I can get more out of the combination?

Pandora Trunsky

A The standard selection of Photoshop brushes work well for many operations, but not pen-to-tablet stuff – even though from version 5 of Photoshop onwards the brushes were compatible with pressure-sensitive graphics tablets.

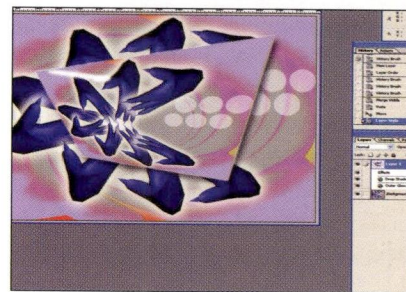
Your best bet for natural media (digital mimicking of 'real life' brushes and paints) is Corel's outstanding Painter software. This has full support

CREATIVEPRIMER

Making 3D objects in Photoshop

NEVER FEAR – IT'S STILL POSSIBLE TO LIVE IN THE THIRD DIMENSION...

That perennial Q&A favourite – the pseudo 3D tool – has disappeared in the CS incarnation of Photoshop. It was a bit tricky to use and tended to produce hit and miss results unless you really knew what you were doing. So what do you do for fake 3D now? Use the new 'Perspective' tool, found under 'Image', 'Transform', 'Perspective'. It creates realistic 3D perspectives on two planes without that fiddly separate interface. Hizzah!



■ No more fiddly 3D trickery for us with Photoshop CS's 'Perspective' tool

CREATIVEPRIMER

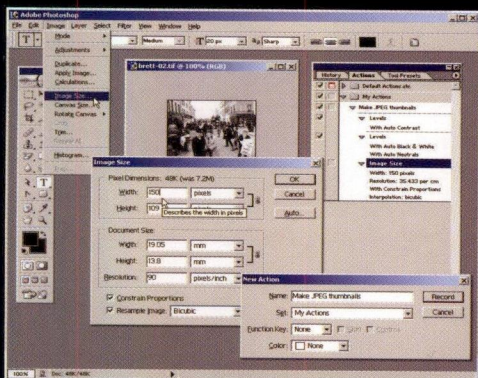
Batch converting images with Actions

Q I've got hundreds of pictures to convert and post onto my online gallery. It's a really tedious process, but I can't find a nice handy batch conversion tool in Photoshop, as there is with other programs. Is there one in the menus and options that I've missed?

Sarah Chapman

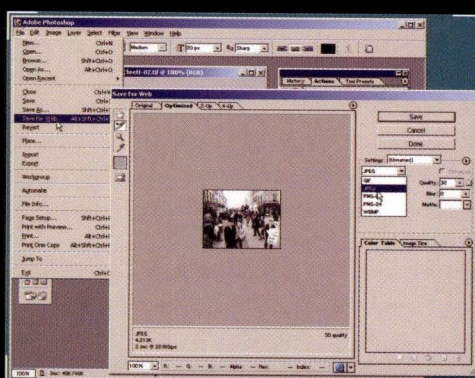
A Photoshop has a feature called 'Actions' which can be used to create a customisable batch conversion tool. Simply edit one photo, recording your edits into an 'action', and then replay this to convert the rest with a single click. You can apply filters, store the export settings in the 'Save for Web' dialog, and resize images.

Load the first photo, then open the 'Actions' panel ('Windows'). From the 'Actions' menu, pick 'New Set...' to create a folder where you can store your actions. Return to the menu and hit 'New Action'. In the dialog box, give your action a name and make sure your set is selected in the 'Set' pull-down menu. Now hit 'Record'.



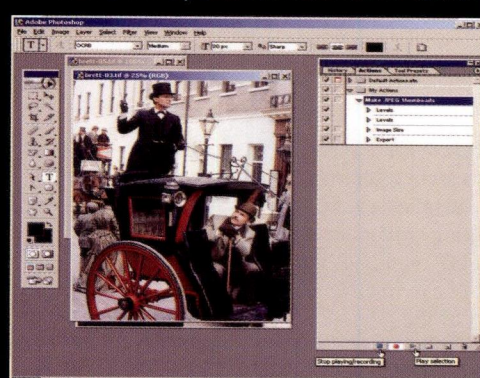
1: Apply the filters and resize

'Auto-Contrast' and 'Auto-Colour' in the 'Adjustments' sub-menu are generally quite good at refining digital photographs. They also work across different pictures far better than specific settings. After tweaking, pick 'Image Size' from the 'Image' menu and shrink the picture to the desired width or height.



2: Save the JPEG

Whichever dimension you alter will be altered in the remainder of the pictures. Next, choose 'Save for Web' from the 'File' menu. Set the export format to 'JPEG' and adjust the compression settings as necessary. Click on 'Save' and save the photo where you want all your others to be stored.



3: Stop and replay

Before you do anything else, push the 'Stop Recording' button at the bottom of the 'Actions' panel. If you click on the arrow next to your action, you'll see all the edits you just made. Now open all your other pictures into Photoshop. Select each one in turn and press 'Play' with your action selected.

KNOWLEDGE BASE:

CREATIVEPRIMER

for all graphics tablets, but more importantly, it actually looks like you are painting when you use your tablet – it's a great way for non-digital artists to get lifelike results in the digital arena, or for digital artists to experiment with traditional art, without having to fiddle with messy paints.

SIZE PROBLEMS

Q I like to take pictures of my family on holidays and recently got a fantastic A3 printer. Unfortunately, I only have a basic digital camera with a maximum resolution of 640x480 (I plan to upgrade soon!), but when I change my 640x480 images to 300dpi for printing, I get nice but very small printouts. When I scale an image in Photoshop, it prints larger but distorts – is there an easy way of avoiding this?

William Haskell

A There certainly is, but you will need a plug-in. Basically, you can't use a resolution or size that's larger than how the original image was taken, because Photoshop tries to interpolate information that doesn't exist in your images, hence the degradation of quality. However, there are a few excellent plug-ins which interpolate this invisible data a lot better than the Photoshop 'Scale' tool. You can achieve about a 200 per cent increase in size without suffering the highly noticeable decreases in image quality.

A good one to try is HumanSoft's X-File software (www.humansoftware.com), which yields impressive scaling abilities, both upwards and downwards – you would be surprised at the loss of image quality that occurs when you make images smaller. This should allow you to realistically print out images 200 per cent larger. Although to be honest, there's no substitute for getting a camera that shoots a higher resolution. For printing out things near A3 size, you need at least a five-megapixel camera.

PLUG-INS APLENTY

Q I went a bit mad a few weeks ago and installed an absolute stack of free Photoshop plug-ins I found on the Internet, but now my 'Effects' menu has about 20,000 different items, and I have realised that I don't really like or need a lot of the plug-ins. They don't seem to have an uninstaller, so is there a way I can get rid of them? Thanks!

Isabel Berry

A Plug-ins can certainly get quite addictive, but thankfully they can be removed very easily within your operating system's 'Explorer'. Right-click the 'Start' button in Windows XP and select 'Explore'. Now you need to go to the 'Program

Files' folder, 'Adobe', 'Photoshop', 'Plug-ins', 'Effects'. You will see a list of all the plug-in effect filters within your Photoshop 'Effects' menu – these are .8BF files named as you would see them in the menu. Now decide which ones you don't want and remove them. Be careful not to remove any of the normal Photoshop filters, or you'll have to do a repair installation to put them back!

CHEAPER PAPER OPTION

Q When I print my artwork on anything but expensive glossy photo paper, it just never looks any good – how can I print good quality printouts without needing to take out a new mortgage?

Bob Shinkler

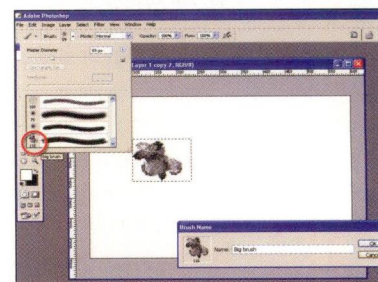
A Unfortunately you only get the very best results with the pricey paper. However, you will find that each printer manufacturer has cheaper versions of their paper that will still yield impressive results and give you a lot more sheets to play around with. You can buy 50 sheets of coated matte for around a tenner, which provides much better colour reproduction than standard inkjet paper and gives almost the same level of quality as you'd get from the glossy photo-quality papers.

You might also like to try creating a colour chart (basically a gradient that displays each type and shade of colour) in your image-editing software, and

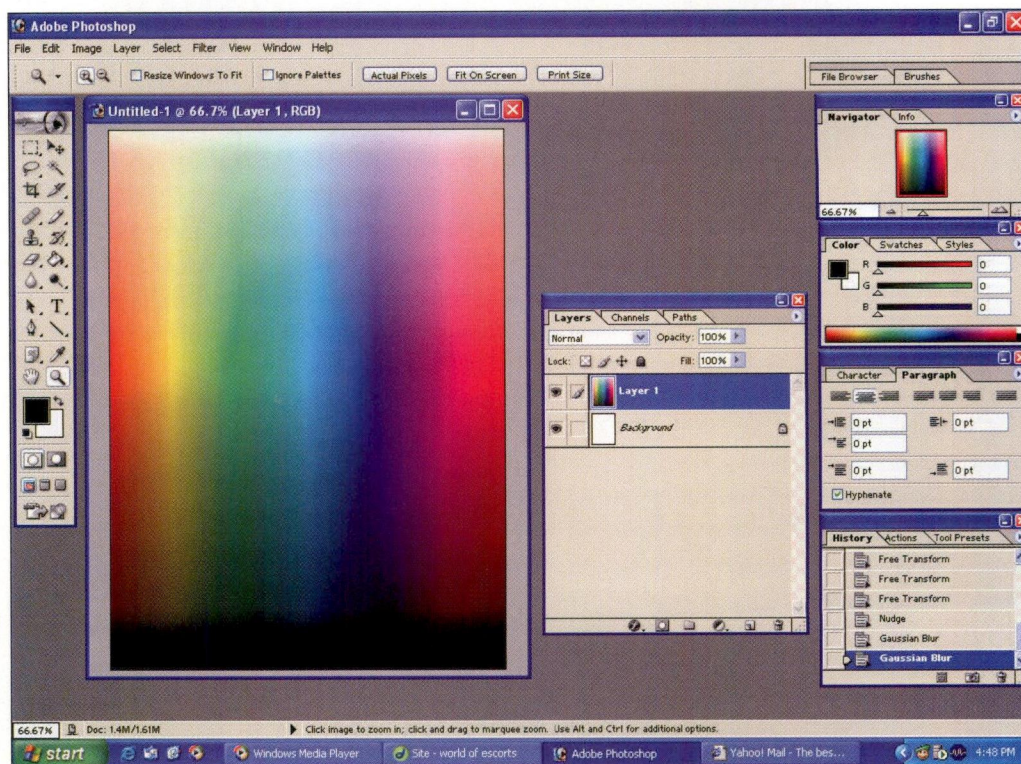
Create custom brushes in Photoshop

THE BRUSH SELECTION IN PHOTOSHOP IS ADEQUATE, BUT CAN BE BOLSTERED BY YOUR OWN ADDITIONS!

Create an image or area of pixels that you want to act as a custom brush on its own layer in the 'Layers' palette. Now select the 'Marquee' tool, then the area of the image you want to use as a brush tip, and choose 'Edit', 'Define brush preset'. Now name the brush, and it will become available in your 'Brush' palette. Use areas of opacity within the brush for more natural-looking textures.



■ Don't settle for the selection of brushes provided by Adobe – make your own instead



■ Create a simple colour chart in Photoshop and use it to compare colour quality on different paper

PHOTOSHOP

print this out at the best quality setting on glossy paper, coated paper, standard paper and inkjet-specific paper. This will give you an idea about the differences in colour reproduction on each type of paper and help you pick which one suits the situation. Failing that, win the lottery and buy reams of the pricey stuff...

ALPHA ALPHA

Q I've heard various people mention 'alpha channels'. Can you tell me what these are, and how I can make them?

Michelle Grady

A Normal 'channels' that make up an image are the red, green and blue channels. An alpha channel is an invisible channel that allows areas of opacity (transparency) in certain image formats. The channel is made up of black through white pixels, and the light regions are see-through. Alpha channels are commonly used in motion graphics where parts of a graphical layer or footage need to be removed to let background elements shine through.

In Photoshop, the creation of alpha channels is simple. Open the 'Layers' palette, click on the 'New Channel' button at the bottom, and voila, an

alpha channel is created. Now you literally just paint the 'holes' into your alpha channel using brushes, masks, etc.

EASY ANIMATION

Q I've been told that animated GIFs are the way to go on the Web, but I have no idea as to how I would go about creating them. Can you give me any helpful tips?

Dan Luke

A You'll be pleased to hear that there are lots of ways to approach animated GIFs, but as always, a little knowledge goes a long way. You can't use any ordinary image-editing package – instead you need something that specifically encodes the files to contain multiple static frames. Photoshop has the ability to do this in ImageReady, which can be accessed by clicking the button at the very bottom of the 'Tools' palette.

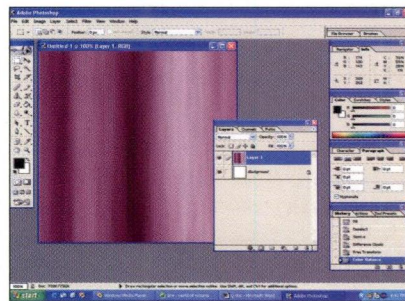
Another option is to use Ulead's excellent Gif Animator software – see www.ulead.com for more details. Basically you create the graphics and then import the separate images into Gif Animator, set the order, time delay, and add hotlinks. It's quick, easy and produces great results.

CREATIVEPRIMER

Texture creation

MANUFACTURE IMPRESSIVE-LOOKING TEXTURES IN SECONDS

The filters and effects in Photoshop are very nice, but couple them with the 'Transform' tool and you can get some unexpected and impressive results. Create a new document with two layers in Photoshop and draw a thin box filled with a solid colour. Add an effect or two and then press 'Ctrl' and 'T'. Now stretch the layer, and you'll have instant textures! Most effects work with this method.



Use the 'Transform' tool to create textures ready for use in 3D projects or as Web backgrounds

CREATIVEPRIMER

Idiot's guide to file formats

Having a good understanding of the different image file formats is crucial, especially with the multitude of save options on offer in Photoshop.

When creating layered artwork, it's best to save in the standard Photoshop format of .psd. This has been designed to keep all the extra info of layers, masks, alpha channels and so on, intact. After all, you never know when you may want to work on the image again!

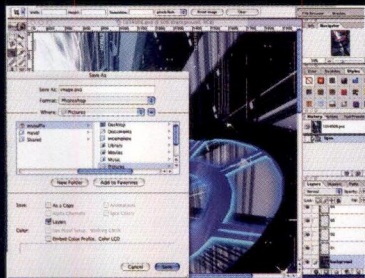
You can't send a .psd file for commercial print in packages like QuarkXPress. If working with print, the best format to use is .tiff. Set it to have no compression – and you'll need to change the colour mode to CMYK to match the four colour process used by printers.

When working with Web graphics, it's vital to get them as small as possible. Your first port of call should be 'Save for Web' in Photoshop; it gives you a preview

of the compression so you can check the quality of your image before making the final save.

It's best to use the .jpeg format for photographic tonal work, except with flat areas of colour or reduced colour images – use .gif instead. When saving as a jpeg, save another (.psd) copy, so there's one without compression.

There is another file format, .png, which is ideal for Flash designers because it allows for transparencies.



1: The Photoshop file format

Any project you work on should be saved in the Photoshop file format, because it retains vital info such as the layers, paths or alpha channels you've created. This results in rather bulky files, so it's best to archive to a CD.



2: A lover's tiff

While TIFFs have the ability to keep the layer information intact, it's better to use this format to save for the commercial printing process. LZW compression can play havoc with image setters, so leave this setting off to save yourself any headaches.



3: Save for Web

Photoshop has the fantastic 'Save for Web' option to optimise your graphics for Web use. Access this from the 'File' menu and use the 'JPEG' setting for any images that have photographic tones. Don't forget to keep a copy in the Photoshop format for editing later.



4: Saved in a jiffy

Graphics with flat areas of colour that are to be saved for the Web are best suited to the GIF format. This is a particularly good option for text and buttons for your Web pages. As before, use Photoshop's 'Save for Web' option and you will get some great file sizes.

LACIE

Leader in FireWire / USB2.0 External Hard Drives, CD-RW & DVD+/-RW



LaCie External Hard Drives

'd2' 500GB
Firewire 800, 400
& USB2.0



250GB

- Sleek, robust case, portable and stackable
- 7200rpm ideal for DV Video without dropping frames
- Fast Firewire 800 'Extreme' up to 88MB/s, USB2 34MB/s sustained
- Firewire, USB2, or new FireWire 800 versions (cables included)
- Compatible with Windows Backup Utility

Available from:

80GB srp £60 (£70.50 inc VAT)

160GB srp £88 (£103.40 inc VAT), **200GB** srp £137 (£160.98 inc VAT),
250GB srp £122 (£143.35 inc VAT), **320GB** srp £184 (£216.20 inc VAT),
400GB srp £249 (£292.58 inc VAT), **500GB** srp £339 (£398.33 inc VAT)

LaCie MobileDrives

MOBILEDRIVE



- Ultra portable (can fit into a pocket) and bus-powered via FireWire or USB
- no need for separate power cable for true portability
- FireWire or USB2 versions (cables included)
- Compatible with Windows Backup Utility

Available from:

20GB MobileDrive srp £62 (£72.85 inc VAT)

40GB MobileDrive srp £85 (£99.88 inc VAT)

60GB MobileDrive srp £106 (£124.55 inc VAT)

80GB MobileDrive srp £151 (£177.43 inc VAT)



LaCie External CD & DVD+/-RW's



MOBILE SLIM
DVD+/-RW
& CD-RW

- Sleek, robust case, portable and stackable
- CD-RW super fast write and rewrite speeds
- Dual format DVD+/- RW high 4.7GB capacity
- Bundle includes DVD authoring software
- Firewire or USB2 versions (cables included)

Available from:

CD-RW 52x32x52x srp £44 (£51.70 inc VAT)

DVD+/-RW 8x4x12x+CDRW multidrive srp £89 (£104.58 inc VAT)

Mobile 24x24x24x CD-RW/DVD Combo srp £73 (£85.78 inc VAT)

Mobile 4x DVD+/-RW+CDRW multidrive srp £119 (£139.83 inc VAT)

LaCie Ethernet Disk (Network NAS Storage)

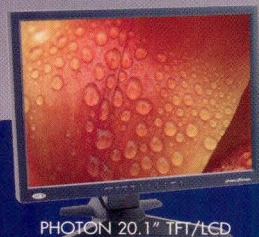


- Share data among as many as 25 users
- Backup function with integrated scheduling feature
- Easily administered via any web browser and accessible through any computer on the network or remotely via http/ftp
- Increase the capacity through the USB & FireWire interfaces
- Quick and simple installation - up and running in 10 minutes
- Features a Microsoft Windows XP® embedded operating system

Available from:

80GB srp £269 (£316.08 inc VAT), **160GB** srp £379 (£445.33 inc VAT)

250GB srp £449 (£527.58 inc VAT), **500GB** srp £649 (£762.58 inc VAT)



LaCie Professional TFT & CRT Monitors

PHOTON 20.1" TFT/LCD

- VGA & DVI connectors on TFT/LCD
- TFT/LCD includes Tilt & Swivel function
- 3-year advanced replacement warranty

- Optional BlueEye provides hardware calibration of E19 & E22
- BlueScan 48 comes with SilverFast software and offers true 48-bit scanning for multiple A4 formats including transparencies

19" Photon Vision TFT/LCD srp £395 (£464.13 inc VAT)

20.1" Photon Vision TFT/LCD srp £575 (£675.63 inc VAT)

19" Electron19 Blue CRT srp £229 (£269.08 inc VAT)

22" Electron22 Blue CRT srp £449 (£527.58 inc VAT)

48-bit BlueScan48 Flatbed Scanner srp £559 (£656.83 inc VAT)

NEW!

LaCie DataWatch



- USB 2.0 Flash Memory storage device
- 3 year battery life with Japan Movement
- Ships with USB extension cable
- Water resistant, shockproof and anti-static
- Transport your files between home and work, while never losing another USB key. The LaCie DataWatch is simple to use and allows you to easily transfer your audio files, presentations, spreadsheets or documents. Wherever you go, you'll be able to easily share files between Macs/PCs

LaCie DataWatch 256MB USB2 srp £69 (£81.08 inc VAT)

LaCie DataWatch 128MB USB2 srp £36 (£42.30 inc VAT)

8in1 Memory Card Reader/Writer USB2.0 srp £15 (£17.63 inc VAT)

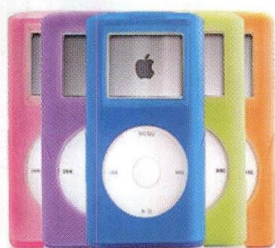
Data Bank USB2.0 20GB srp £109 (£128.08 inc VAT)

Data Bank USB2.0 40GB srp £139 (£163.33 inc VAT)

E&OE May 2004

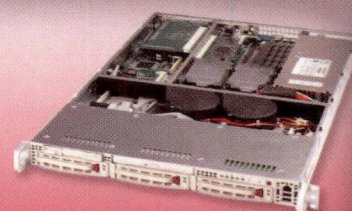
LaCie products are available from leading resellers - visit www.lacie.com/uk/wheretobuy

LaCie UK Ltd, 46 Gillingham Street, London, SW1V 1HU - Email: info.uk@lacie.com www.lacie.com/uk



Standard Reseller -
£30 per month -
£300 per year

- 1000 MB of Disk Space
- 10000 MB Bandwidth per Month
- Anonymous Control Panel and Nameservers
- Optional Personal Nameservers
- 500 Domains/Users
- ASP/ASP.NET/PHP/Perl
- 500 mySQL Databases
- DSN-Less Connections Supported
- FTP Access
- 5000 POP3 Accounts
- 5000 Email Forwarders
- 5000 Email Autoresponders
- Shared SSL Support
- Optional SSL Certificate
- Control over DNS records
- Regular Backups
- 24/7 Server Monitoring
- Colocation and dedicated solutions are also available



W: www.4dhosting.com T: 0845 1668386

➔ more than just

CheapNames

only **£4.00** only **£9.00**
.co.uk **.com**

FREE TELEPHONE AND EMAIL TECHNICAL SUPPORT
 Honest, value for money domain registration, domain management systems, email packages and fast, reliable web hosting. Fully inclusive price with many more international domains available.

FREE .co.uk
domain name
 with all new web hosting accounts

call us today on **0870 120 8888**
 online **www.cheapnames.co.uk**

➔ web hosting too

	StartUp	StartUp+	Business	Business+	Enterprise	Enterprise+
Webpace	100MB	200MB	500MB	700MB	1GB	1.5GB
POP3 email boxes	5	10	25	50	100	200
Data transfer pcm	1GB	2GB	4GB	6GB	10GB	15GB
Account manager						✓
Secure connection		✓		✓		✓
MySQL, PHP, ASP		✓		✓		✓
FrontPage 2002		✓		✓		✓
NEW Virus & Spam Filter		✓	✓	✓	✓	✓
Firewall	✓	✓	✓	✓	✓	✓
Physical security	✓	✓	✓	✓	✓	✓
24/7 monitoring	✓	✓	✓	✓	✓	✓
Web-based email	✓	✓	✓	✓	✓	✓
Full FTP access	✓	✓	✓	✓	✓	✓
CGI Perl 5.8	✓	✓	✓	✓	✓	✓
SSI	✓	✓	✓	✓	✓	✓
Web site statistics	✓	✓	✓	✓	✓	✓
Control panel	✓	✓	✓	✓	✓	✓
25 visual tutorials	✓	✓	✓	✓	✓	✓
Per Month	£4.99	£7.99	£13.99	£16.99	£21.99	£24.99
Per Year	£49.99	£89.99	£149.99	£189.99	£249.99	£289.99

ON SALE NOW

Available from all good newsagents, or call for a copy direct on +44 (0) 870 444 8682

► Composition ► Sequencing ► Sampling ► Synthesis ► Editing ► Mixing ► MIDI ► Recording

Digital Music Maker

OVER 80
FREE FX!
OVER 650MB
OF GOODIES

FREE
DISC!
OVER 650MB
OF GOODIES

More tutorials than any other music monthly

Windows Mac X

Reverb, delay, chorus, phase, distort...

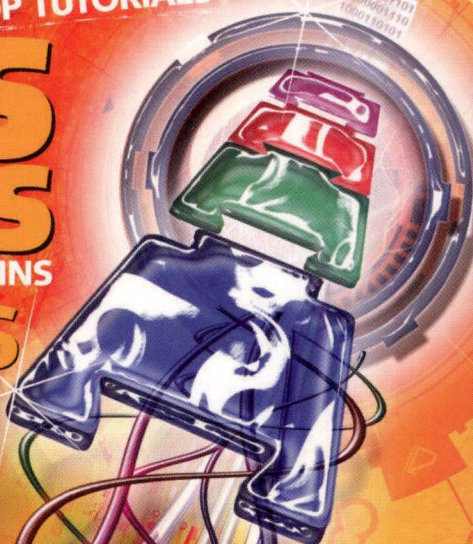
50 PAGES OF
TOP TUTORIALS

EFFECTS ESSENTIALS

GET-STARTED GUIDE TO EFFECTS PLUG-INS

EASY ARPEGGIOS

► Discover how to create amazing arpeggiated patterns



ON CD! COMPLETE BEGINNER'S GUIDE

OVER 100MB of industrial sound effects

High-quality machine noises and industrial ambiences from the Sound Effects Library

Vokator

Native Instruments' award-winning vocoding suite for you to use on Mac & Windows PC demo

FREE EFFECTS PLUGINS GALORE!

Don't miss our huge plugin collection for Mac & PC, featuring...

- Reverbs & delays
- Chorus & flangers
- Tube FX & distortion

RING MODULATION

EXTENSIVE AUDIO DEMOS OF THIS AUDIO-MANGLING TECHNIQUE, PLUS CONCRETEFX RING MODULATOR PLUGIN (PC DEMO)

FEATURED: ANTARES FILTER

Sculpt your sound with this incredible rhythmic filter

PLUS HEAR OUR IN-MAGAZINE PROJECTS MP3 AUDIO TUTORIALS

FREE
CD-ROM

Hear audio examples of the tutorials shown in the magazine, and try out the very latest music-making software

Channel
strips

On trial: the latest
project-studio
signal processors

ON SALE NOW
**REASON
SPECIAL**

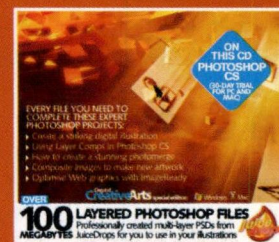
Don't miss our guide to
this top soft studio -
only £5.99 with
FREE CD

- Sound advice for musicians using today's tech
- In-depth tutorials on all aspects of making music
- Authoritative buying advice on the latest products
- Sophisticated techniques explained in plain English

Digital Creative Arts special edition

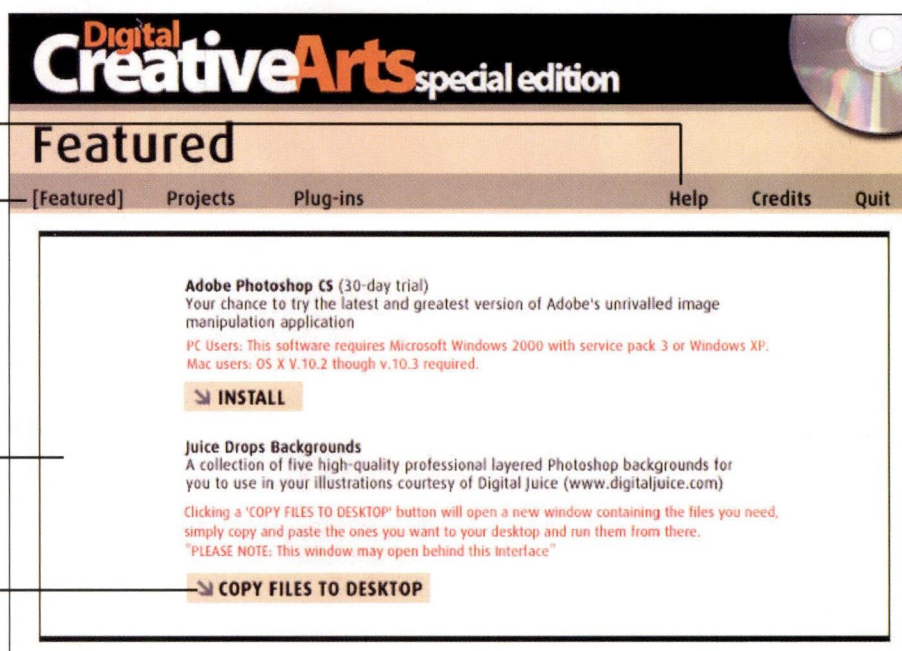
On your free CD

All the information you need to get the most from this issue's CD



How to use your free CD

Pop your CD-ROM in the optical drive of your PC and you'll see the interface pictured below appear. Mac users will need to double-click the CD icon that appears on the desktop to load the interface



This link provides details about how to get technical support for your disc

Navigate through the categories on the CD-ROM by clicking the links on this menu

The main software in each category will appear in this window

Click on one of these buttons to install software from the CD

Experiencing difficulty with your CD? Don't worry our team of troubleshooters can help

GETTING HELP BY EMAIL

Digital Creative Arts Special Edition provides help only with using the CD. If you run into any bother you can email our helpdesk team at cdhelp@digitalcreativearts.co.uk

GETTING HELP BY TELEPHONE

Digital Creative Arts Special Edition offers a limited telephone support service. Our CD helpline is open every Wednesday between 2pm and 6pm only. Call 01202 200259 for assistance

This issue's CD contents

A closer look at the content of this issue's Digital Creative Arts Special Edition CD

NAME: PHOTOSHOP CS
LICENCE: 30-DAY TRIAL
OS: WINDOWS XP & MAC OS X
URL: WWW.ADOBE.CO.UK

Pride of place on the DCA SE CD-ROM is taken up by Photoshop. And that's why there's not that much on this issue's CD – the combined size of the PC and Mac demos and our project files is pretty huge. Anyway, Photoshop CS is the best version of Photoshop yet, providing graphic designers, digital photographers and digital video editors with a wealth of new tools for enhancing their projects and boosting their creativity. If you want to upgrade to the full product it will cost you £605.13.



NAME: JUICEDROPS BACKGROUNDS
LICENCE: FREE
URL: WWW.HOLDAN.CO.UK

Also included on this month's CD are five beautifully rendered professional Photoshop backgrounds. These layered files are completely free and are each made up of multiple layers, effectively giving you even more images to play with. These files are included courtesy of DigitalJuice's JuiceDrops series of layered stock art. If you want to buy the full version of the collection (16 volumes with three DVDs in each volume) it'll set you back £349.99. Visit Holdan's Web site for more information.



NAME: FIXER BUNDLE/ IMAGE ALIGN
LICENCE: DEMOS
OS: WINDOWS XP AND MAC OS X

We round off with a collection of cool Photoshop plug-in demos for photographers. First we've got FixerLabs' Fixer Bundle (www.fixerlabs.com), which can remove blur, noise and grain from digital images and simulate camera blur. It costs \$128 for the full version. Last, but by no means least, is ImageAlign (www.imagealign.com), a nifty Photoshop power tool for correcting lens curvature and camera tilt. The Home Edition costs \$29.95 and the Professional edition will set you back \$199.



Technical specs

Important information

By running this disc it implies that you agree to the following terms and conditions. Please note for the purpose of the statement below the term 'disc' refers to the actual disc itself and all the contents included within the compilation, such as software trials, shareware and freeware software and tutorials.

You run this 'disc' at your own risk and in no event will Highbury Entertainment Limited accept liability or be held responsible for any damage, disruption and/or loss to data or computer systems as a result of using this 'disc'. Highbury Entertainment Limited makes every effort to ensure that the 'disc' is delivered to you virus-free, however we strongly recommend that you run a virus checker over the 'disc' before use. We also recommend that you have an up-to-date backup of your hard drive before using this 'disc'. At the time of production, all hyperlinks on the 'disc' direct to the intended destination, we cannot however guarantee that at the time of use these hyperlinks direct to that intended content, and, as we have no control over the content on such sites, we do not accept any liability for content that may appear as a result of visiting these hyperlinks. Some software on this disc may be Shareware, which means that if you continue to use the program you should register it with the author. Freeware software can be used free of charge. Trial versions of software are either time-limited (eg limited use of 30 days before becoming unusable) or have some functions/features disabled.

Loading the CD

WINDOWS

We support Windows 98, 2000 and XP unless otherwise stated

MINIMUM REQUIREMENTS:

Screen resolution of 1,024 X 768 or higher. Preferably with Macromedia Flash Player 5 or higher, Internet Explorer 5.5 or higher installed.

The CD-ROM interface should autorun once entered into your CD Drive, however, if it does not please follow the instructions below.

1. Double-click 'My Computer'
2. Right-click on your relevant CD drive and select 'Open' from the dropdown list.
3. Read the readme.txt if present to find out which file you need to launch to run the interface. Note this file is normally 'Start.exe', but there may be exceptions.

If you have problems running the interface, all of the contents are available on the disc and can be reached by following the method above and opening the relevant folders (ie Software folder for all of the software).

Missing, faulty or damaged disc

In the event that your CD or DVD has arrived to you faulty or damaged in any way, please contact the address below for a free replacement. Be sure to state the magazine title, issue number and your full name and postal address with any correspondence.

Cover Disc Returns
Highbury Entertainment Limited
Paragon House
St Peters Road
Bournemouth
BH1 2JS

Tel: 01202 200200
Email: subs@paragon.co.uk

Similarly, you can contact this same address if your disc is missing when you purchase the magazine.

Next month in **Digital Creative Arts** Special Edition...

FINAL CUT PRO

Learn how to edit like a professional as we take you on a guided tour of Apple's awesome video-editing package

- We show you how to create the perfect edit
- Create breathtaking titles with LiveType
- Add audio to your movie with Soundtrack
- Burn movies to DVD with DVD Studio Pro
- Tips and tricks for FCP & Final Cut Express

PLUS! 50 EXPERT FINAL CUT PRO TIPS

Take your video-editing skills to the next level with our advice

**On
sale**
29 July
2004

ON YOUR FREE CD

THE COMPLETE FINAL CUT DIRECTORS' TOOLKIT

- THE BEST FINAL CUT PRO PLUG-INS
- TRANSITIONS, WIPES AND EFFECTS
- ROYALTY-FREE EDITING RESOURCES

All contents are subject to change



Reserve your copy today

Dear Newsagent,

Please reserve a copy of *Digital Creative Arts Special Edition* for me when it comes out on 29 July 2004

Name

Address

.....
.....

Telephone number

To the newsagent:

Digital Creative Arts Special Edition is published by Highbury Entertainment Ltd: 01202 299900

Call our hotline now on **0870 444 8682** to reserve your copy. Email subs@paragon.co.uk

3D FOR THE REAL WORLD

STAY COOL

CINEMA 4D BODYPAINT 3D

As a 3D artist, you have to face tight deadlines and demanding clients. MAXON Software gives you unparalleled speed and stability that you can rely on.

CINEMA 4D is the package of choice for all types of professional 3D work and offers individual modules to suit your personal needs.

BodyPaint 3D is the ultimate 3D texturing solution for all users of CINEMA 4D, Maya, Lightwave and 3ds max – don't accept flat compromises when it comes to the heart of your artwork.

BODYPAINT 3D
2 CINEMA 4D

MAXON



Penguin © Chris Creatures

www.maxon.net

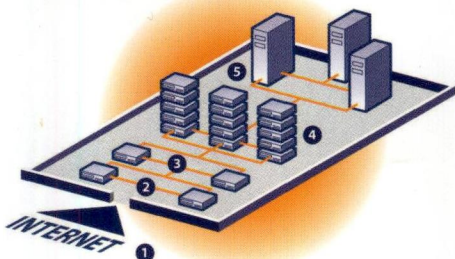


Load balanced web hosting

envisage is a unique technology developed by Fasthosts, in partnership with Microsoft.

All requests for your site are load balanced across high performance web servers, ensuring maximum availability.

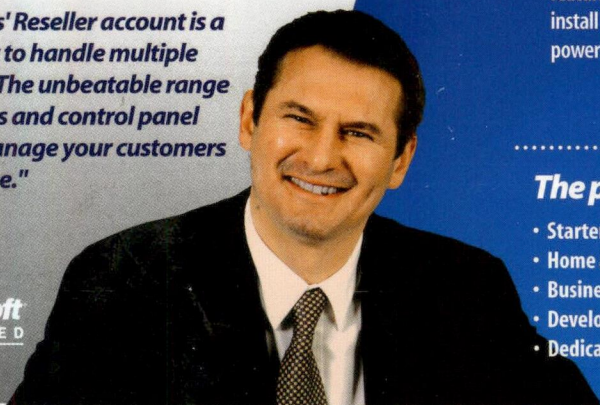
envisage
Shared Hosting Architecture



- 1 Network firewall - Protects Fasthosts' network
- 2 Internal firewall - Second protective shield
- 3 Load balancers - Efficiently distributes traffic across server clusters
- 4 Redundant web servers - Ensures delivery of site contents if a server fails
- 5 Network storage - Independent storage optimising server performance

"Fasthosts' Reseller account is a great way to handle multiple websites. The unbeatable range of features and control panel let you manage your customers in real time."

Microsoft
CERTIFIED
Partner



Host unlimited domains

Take 100% control of every domain from your powerful web based control panel. Customise SiteBuilder, Web mail & more - even create your own hosting packages, all for a flat monthly fee!

Unlimited domains

All your domains are load balanced across full virtual servers hosted on your choice of Windows 2003 IIS6 or Linux Apache.

Scripting

Support for ASP, ASP.NET, Perl, PHP, CGI and access to the .NET Framework.

SiteBuilder

Enables your customers to create their site with an easy to use wizard. You can custom brand the service.

Matrix Web Stats

With Matrix Stats you can monitor and analyse website traffic on any of your domains.

Databases

Supports ODBC and, optionally, MySQL and MS SQL, hosted on our powerful database servers.

FrontPage Extensions

Install Microsoft FrontPage Extensions 2002 on any of your domains.

Control panel

Control and customise each of your account's features - set up domains, email, databases, install FrontPage Extensions - using Fasthosts' powerful and easy to use control panel!

Reseller account

Start your own hosting business for just £50 per month plus VAT.



30 day money back guarantee



Plus support for

- Your own custom name servers
- Create unlimited FTP accounts
- SSL support
- Media streaming
- Password protected folders on your sites
- Create dialup accounts for your customers



Full unrestricted access to the .NET Framework version 1.1

NB Some of the features mentioned above incur additional charges.

The power behind web hosting

- Starter account from £1.99
- Home accounts from £4.99
- Business accounts from £14.99
- Developer Account from £19.99
- Dedicated server solutions from £89

Xtreme Support

24x7, 365 phone, email and online support

Best value domain names from www.ukreg.com

For instant advice and set up, call

0870 888 3821

or to start your own hosting business in minutes, visit www.fasthosts.co.uk



www.fasthosts.co.uk